

PROTECTING THE LAND OF THE CHESAPEAKE

BALANCING NATURAL AND CULTURAL RESOURCES



UNIVERSITY OF MARYLAND
SCHOOL OF ARCHITECTURE, PLANNING AND PRESERVATION

John Heermans
Summer 2011

Protecting the Land of the Chesapeake: Balancing Natural and Cultural Resources

John Heermans

Masters Final Project

Submitted to the faculty of the Historic Preservation Program,
School of Architecture, Planning and Preservation,
University of Maryland, College Park

In partial fulfillment of the requirements for the degree of
Master of Historic Preservation
2011

Advised by:

Dr. Donald W. Linebaugh
Historic Preservation Program Director

Cover Photo:

Mount Calvert and Wild Rice on the Patuxent River
Source: Flickr Author: Teresa McTigue



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ACKNOWLEDGMENTS

I would like to acknowledge all those who offered their time, knowledge and guidance during my research. I would especially like to thank the Maryland Department of Natural Resources, the Maryland Historical Trust and all those in Prince George's and Anne Arundel County who I contacted for this report. Finally, I would like to thank my advisor, Dr. Donald Linebaugh, for his patience and generous support throughout my final project.

Howard Berger

Supervisor
Prince George's Countywide Planning Department
Maryland - National Capital Parks and Planning
Commission

Elizabeth Buxton

Director
Maryland Environmental Trust

Jon Chapman

Stewardship Manager
Maryland Environmental Trust

Robert "Yates" Clagett, Jr.

Program Administrator
Prince George's Soil Conservation District

Jane Cox

Cultural Resources Specialist
Anne Arundel Planning and Zoning

Joyce Ferguson

GIS Specialist
Prince George's Countywide Planning Department
Maryland - National Capital Parks and Planning
Commission

Patricia Gallivan

GIS Coordinator
National Center for Smart Growth

Billy Gorski

Agriculture Program Planner
Anne Arundel Department of Recreation and
Parks

E. Fatimah Hasan

Program Manager
Prince George's Countywide Planning Department
Maryland - National Capital Parks and Planning
Commission

Martin Howes

GIS Specialist
Prince George's Countywide Planning Department
Maryland - National Capital Parks and Planning
Commission

John Hutson

Easement Program Manager
Maryland Environmental Trust

Cory Kegerise

Local Program Administrator
Maryland Historical Trust

Tom McCarthy

Land Acquisition Planner
Maryland Department of Natural Resources

Jennifer Chadwick Moore

GIS Specialist
Maryland Historical Trust

Barbara Polito

Program Administrator
Anne Arundel Department of Recreation and
Parks

Jennifer Stabler

Archeology Planning Coordinator
Prince George's Countywide Planning Department
Maryland - National Capital Parks and Planning
Commission

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ABSTRACT

From Washington, DC to the Chesapeake Bay, there is a landscape rich with natural resources, sensitive habitats and wetlands, cultural and historic sites and rural character. This same landscape is also under pressure from intensive land use and regional development, which not only consumes valuable land resources, but also degrades the health of the Bay. Consequently, federal, state and local governments are finding new ways to preserve land as a way to protect the Bay, as well as the unique natural and cultural resources embedded within its watershed. Land preservation programs have been successful in protecting large undeveloped tracts in order to preserve agricultural enterprises, natural areas and fragile ecosystems, public lands for recreational and educational purposes and significant historic and cultural sites.

As development pressure mounts and suburban sprawl takes root in rural areas, the need to protect land is far outweighing the available resources of many land preservation programs. This requires that programs have focused agendas, efficient day-to-day operations and the ability to draw on the capacities and resources of other disciplines. Even though land preservation programs have the management capacity to target and protect large pieces of land under their agency, all too often they fail to realize new opportunities in establishing strong working relationships with other fields. This is partly due to the fact that they must focus narrowly while advocating for additional funding from federal or state agencies. Additionally, many land managers operate within organizational silos and miss the opportunity to collaborate across disciplines. Identifying overlaps between fields with shared goals and similar operational activities can be used as one way to increase the ability of land preservationists to protect valuable undeveloped areas, which is especially important in times of limited funding due to a depressed economy and cutbacks in government spending.

This research discusses the opportunity for historic preservationists and cultural resource managers to work with land preservationists and natural resource managers in Prince George's and Anne Arundel counties in Maryland. There are clear ways in which the two fields can come together to work toward shared goals by first realizing the obstacles between disciplines and then creating innovative approaches that connect different programs to protect cultural and natural resources in rural or natural areas.

Part of the reason that historic preservation and land preservation often operate independently is because of the long term perception that separates nature and culture. People frequently consider themselves apart from their natural environment, a notion that carries over to the ways in which we manage land and determine land uses. As a result, land managers and historic preservationists have created different terms, methods and languages for determining resources worth protecting and the significance of an area. The discussion of the human connection to the land is often constructed in simplistic terms as complexity is risky and may require additional time and resources to fully develop.

Additionally, historic preservationists have traditionally focused on historic structures and buildings as the principal resources worth saving. Fancy mansions, plantations and other architecturally distinct buildings are a large percentage of the resources that get nominated to inventories of historic sites. While this is changing and preservationists are now more adept at recognizing culture and historic significance in a wider range of resources, many people still regard the field with relative wariness due to stringent requirements to treat historic buildings. The effect has been the isolation of preservationists and a barrier to working alongside other disciplines.

In order to build these partnerships, there are certain things both fields can do to start to blend natural and cultural resource management into an even stronger and more effective movement. First, historic preservationists can make stronger connections between historic sites and their surrounding environment by identifying cultural landscapes and extending protective measures from only the structure to the land on which it is situated. Additionally, land preservation programs can discuss the cultural value of protecting rural areas with working landscapes, active farm fields and traditional uses. Both fields can build better stewardship for the land by improving public access and tying more users to rural areas, which will make people recognize and appreciate all of the natural and cultural values within the surrounding landscape. Finally, both sides should begin to establish partnerships whereby multiple disciplines share the duties associated with managing the land and its embedded resources, qualities and values. A single property or piece of land may contain several types of resources that appeal to multiple interests. Leveraging these separate interests will help in developing an effective management tool that will allow program administrators to protect land by relying less on fluctuating funding resources and more on strong partnerships between fields with shared goals.

CHAPTER 1: INTRODUCTION

From Washington, DC, westward to the Chesapeake Bay, there is a landscape rich with streams, wetlands and forests that perform important ecological processes and provide habitats for species diversity, clean air and clean water. These same natural areas also entertain an assortment of recreational users that hike, bike, run, kayak, canoe, hunt and fish in the unique watershed of the Chesapeake. Along the same transect, rich soils support local agricultural production and create strong rural economies. There are also significant cultural and historical resources that preserve national stories and contribute to unique rural character. As a group, these landscape features encompass essential natural, recreational, agricultural and cultural values that contribute to a high quality of life in the region; however, they are threatened by expanding development that is encroaching into rural areas. As the Washington, DC, and Baltimore metropolitan regions metastasize with population growth, valuable undeveloped lands are being lost to subdivisions, commercial strips and expanding road networks. The effects of urban and suburban sprawl have degraded the quality of the Chesapeake Bay, destroyed habitats, degraded farm economies and razed historic sites and resources.



Source: Flickr Author: thisisbossi

Image 1. Wheat fields on agricultural land in Prince George's County enhance rural character.

Protecting these lands by managing growth is essential for preserving quality of life and protecting the environment. A number of federal, state and local land preservation programs are currently working to preserve vast expanses of connected undeveloped lands using land acquisition and easements as some of the tools to combat sprawl. Even with a variety of programs, the need to protect land is far outweighing the available resources for these programs. Additionally, many landowners are reluctant to participate in programs that threaten private property rights. These factors require land preservation programs to be: efficient in order to maximize their effects, flexible enough to address a wide range of landowner concerns and open enough to collaborate with other programs to reduce redundancies. Bridging the gap that typically isolates agencies can be done by recognizing shared goals, overlapping targeted resources and common challenges to protecting land, which will help to strengthen programs and ultimately protect natural, rural and cultural landscapes.

The need for inter-disciplinary collaboration is no more apparent than between historic preservationists and environmentalists, who typically focus either on historic sites and cultural overlays or natural areas, water quality and species diversity. Even though they specialize in two different types of resources, there are many shared goals that can be leveraged simultaneously in the pursuit of preserving natural and cultural land features.¹ Identifying where cultural resource management plays a role in natural land preservation and vice versa can form the groundwork for new partnerships and multi-disciplinary approaches to land management. By first recognizing where and why cultural resource managers and land conservationists diverge, land managers can better realize new opportunities for coming together.

The purpose of this analysis is to explore the reasons why the historic preservation and environmental fields are separated and identify collaborative opportunities by examining state and local land preservation programs in Prince George's and Anne Arundel counties in southern Maryland. The high development pressures surrounding Washington, DC, as well as the movement to restore the Chesapeake Bay, provides a political and social context in which to frame land preservation programs. Prince George's and Anne Arundel counties are rich in cultural resources, productive agricultural lands and sensitive natural areas, which outlines an area in which land preservation is urgently trying to keep up with suburban development. Within this political, social and geographic context, the following discussion is broken down in five parts. Chapter 2 examines the divide between the natural and cultural fields, different strategies that blend natural and cultural resource management and the role of historic preservation in land conservation.² Chapter 3 describes the significance of land preservation to the Chesapeake Bay as well as the federal and state efforts to preserve land in the Chesapeake region. Chapter 4 presents Prince George's and Anne Arundel counties' local land

¹ For the purpose of this report, 'cultural' and 'historical' are used interchangeably to represent the resources, activities and programs of the historic preservation field.

² For the purpose of this research, land 'conservation' and 'preservation' are used interchangeably as the programs investigated protect both the current use and the long-term preservation of undeveloped land. Land preservation programs that focus on restoring land to forest or natural states, such as the Forest Legacy Program, were not investigated as they limit current land use and take land out of agricultural production.

preservation programs. Chapter 5 discusses how land preservation programs at the state and local level were assessed to determine where they overlap natural and cultural resource management. Chapter 6 presents the findings of the analysis and as well as key implications. Finally, Chapter 7 offers a series of recommendations for leveraging ways in which land preservation programs can better protect multiple interests and values in the land. The goal of this research is to spur the discussion between historic preservationists and natural resource managers by suggesting new opportunities for working together.



CHAPTER 2: THE NATURAL AND CULTURAL DIVIDE

The natural and cultural realms are often visualized in simplistic terms as opposite ends of a spectrum. One end represents the ‘cultural,’ or that which is influenced by human activity and societal change; at the other end is the ‘natural,’ or that which is primarily wild and unmolested by humans. In between is a gray area of complex interfaces that are more difficult to categorize. Historic preservationists and environmentalists are often polarized at opposite ends of this spectrum, even though they both are responsible for addressing the gray area between culture and nature (Conrad, 2001). Understanding this gray area requires revisiting dialogues, definitions, and methodologies used to determine the human experience on the landscape (Lewis, 1979). Building a common language to portray the human and natural interface requires an understanding of the varying influence of one on the other. Ecological notions of succession, or the transition between ecological areas, have been used to explore the complex resources and systems that encompass both cultural and natural values (Melnick, 2000). Just as ecosystems change, so too should the understanding of our relationship with the land and our efforts to manage the resources and values embedded indifferent definitions of landscapes.

At the ends of the spectrum, communications between environmentalists and preservationists are often restricted, because of disciplinary specialization. Professionals are accustomed to operating in “informational silos” as they program new strategies to manage and protect resources under their agency (Talmage, 2010). This is especially true for preservationists and environmentalists who must address deep questions on the relationship between humankind and the environment, a topic that has confounded centuries of philosophical, theoretical and theological writers. As a result, information sharing is largely restricted to simplistic terms as complexity is generally perceived as risky and the source of misinterpretation. Also, it is extremely difficult to connect ecological conditions to social impacts, which is perpetuated by the finding that people are more likely to react only if there is a clear positive feedback to systematic change (Balch, 2007). As a result, long term planning and a multidisciplinary study of cultural and environmental management is needed to fully understand the effects of land use policy, economic pressure and social motivation (Balch, 2007).

Part of the separation between the natural and cultural fields can be attributed to the difficulty in defining where and how culture exists in landscapes. The term ‘cultural landscapes’ defines “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values” (Birnbaum, 1994). As landscapes may encompass many different types of resources, including vernacular architecture, historic land use, plantations, scenic areas, roads, railways, trails, the range of interests, cultures and traditions encompassed by landscapes effectively obscure tidy descriptions of cultural overlaps in natural contexts (Lewis, 1979).

There are other underlying reasons why people are accustomed to regarding nature and culture as the polar ends of a complex spectrum. The notion of human's dominion over the wild perpetuates a violent relationship between the two (Melnick, 2000). Our relationship with nature is continuously polarized in contemporary culture. For example, the Discovery Channel's shows "Man versus Wild" and "Survivorman" pit the will of man against the forces of nature in a cinematically rich context. This violent relationship precedes contemporary culture when looking back to the settlement of the wild west and expansions into the frontier. The overriding attitude of this era was to overcome and harness the natural world to make it succumb to human endeavors (Judd, 2003). This is especially apparent in western (or developed) land use models that alter natural environments to fit the needs of surrounding populations and economic growth. As a result, the perception of man versus nature perpetuates the gulf between environmentalists, focusing on ecological health, and preservationists focusing primarily on cultural dimensions of the built environment.

Some cultures have a more harmonious view of the human relationship to nature that promotes coexistence rather than man's dominion. Many indigenous cultures see their environment as a place of abundance and provision that, if effectively used, contributes to health, community well-being and ecological integrity (Melnick, 2000). Land use, under this framework, regards ecological and human health as one in the same, where nature is familiar as opposed to foreign (Salmon, 2000). Indigenous land use traditions employ the variation within natural systems to determine harvest and land use, which diverges from the western tradition that forces natural systems to accommodate human needs and schedules through technology and innovation. Researchers have defined this indigenous land use strategy as 'kincentric ecology,' which suggests that heritage and culture are a combination of family, communities and the environment that supports them (Salmon, 2000). Indigenous constructs of culture and nature, viewed this way, are described as a cyclical relationship between people and their environment. A similar illustration can be found in the eastern philosophy of feng shui, which guides site development or land use by using natural features and site orientation to determine the best places for human occupancy (Hardesty, 2000). The feng shui system relies on the natural world to lead human settlement through the belief that the surrounding environment provides for a high quality of life, as long as those features are protected and used sustainably to meet community needs. These types of cultural frameworks counter the western view of a linear progression of history that tracks the evolution of new innovation for the sake of societal convenience, or trades social and cultural capital in exchange for economic gain (Denslagen, 1993). Recognizing a diverse array of natural and cultural relationships and values is increasingly difficult for land managers, who rely on science and politics to direct development and land use.

Diverging interpretations of culture and nature create obstacles for preservationists and environmentalists attempting to integrate the knowledge and vision intrinsic to either field (Conrad, 2001). In a political climate that leads to competition between interest groups for limited funding and political support, environmentalists and preservationists find themselves having to make narrow and specific arguments in support of their resources which restricts the dialogue that could find common

ground or shared goals between both parties. Instead of narrowly focused definitions of natural or cultural elements, fostering a shared vision for resource protection that encompasses the natural landscape, as well as the many different cultural values embedded therein, has the potential to: create more efficient land use policies that transcend both fields, broaden concepts of sense of place and build greater stewardship for the land.

Blending Cultural and Natural Resource Management

As in many fields, preservationists are seeking new ways to appeal to broader audiences. Balancing the many values a resource may engender and creating solutions or projects that achieve preservation and non-preservation goals are some ways preservationists are reaching out in order to address larger social issues (Mason, 2006). The values centered approach to preservation requires partnerships, collaboration and compromise to develop practical solutions that achieve goals for a diverse set of stakeholders. Increasingly, land managers are creating successful methods of combining local knowledge and traditional land uses with environmental science through a values centered approach that manages natural and cultural resources together as part of the larger landscape.

As a complement to a values-centered preservation approach, historic preservationists are currently developing a 'Whole Place' approach, which considers the resource as a whole while developing plans for its long-term management (Nicholas, 2010). On one hand, focusing on the broader cultural landscape, as opposed to solely the historic structure, creates a deeper understanding of human settlement in a region over time. On the other hand, building preservation often creates a more limited and site specific depiction of history, relative to the inhabitants or events associated with a particular site, or within a specific time period (Birnbaum, 1994). Broadening the concept of the resource to encompass the larger patterns of human development will allow preservationists to connect with other landscape initiatives and protect a wider array of historic resources.



Source: Flickr Author: rebecca

Image 2. The Java Farm on the Rhode River in Anne Arundel County preserves agrarian tradition and natural land.

Today, there is a growing movement to incorporate Traditional Ecological Knowledge (TEK) into natural resource management plans that have, up until now, mostly relied on scientific research. This requires a multidisciplinary approach that blends quantitative data with local cultural experience (Huntington, 2000). The use of TEK has been slow to develop as many environmental scientists and policymakers are reticent to adopt qualitative methodologies and 'local hearsay' as a compliment to scientific rigor. Regardless, the momentum behind the use of TEK creates a formal opportunity to establish collaboration between the natural and cultural fields through the local interpretation of ethnographic landscapes that can complement scientific examination. Fortunately, cultural resource management specialists are taking steps to incorporate broader views of natural resource management by increasing public participation, expanding methods of scientific research and establishing procedures that enhance collaboration between stakeholders from diverse backgrounds (Donald, Kusche, & Gaines, 2005).

In the southwest, land managers and planners are beginning to realize the biocultural diversity of a place, an approach that measures the biological and cultural elements of people and their environments. The underlying principle here is that culture is the result of the ways in which varying ecologies have shaped human physiology (Nabhan, Pynes, & Joe, 2002). In regards to resource protection, this means there is a greater emphasis on recognizing how landscapes have influenced cultural constructs. Land managers have used local cultural knowledge of regional ecological systems to create better management strategies stemming from collaboration between land managers and local citizens (Nabhan, Pynes, & Joe, 2002). The goal was to shift natural resource management from strictly focusing on biodiversity to also incorporating traditional land knowledge.

Another proposed model for improving the efforts of cultural and natural resource management suggests that the greatest opportunity exists in land conservation, even though the field needs revision (Trombulak, 2003). The model requires that land conservation is expanded to encompass "...the full scope of what ought to be conserved in the biological world," and accept the controversy that will inevitably be part of advocating for protecting lands that are not solely recreational, economically gainful or socially agreeable (Trombulak, 2003). Society has little difficulty in protecting scenic areas, wildlands with high biodiversity or recreational areas, but is less willing to support the long-term protection of areas with less tangible values or where less politically powerful populations are concentrated. The fear of relinquishing property rights, loss of public access and use restrictions dominate widely held suspicions about long-term land use policies (Stokes, Watson, & Mastran, 1989). As a result, advocates of land conservation must be explicit about the geographic areas that should be conserved (and areas where use is allowed), the planning procedures to establish these areas and the funding mechanisms to support sustainable land stewardship. Additionally, land conservation must work to: gain community support, preserve quality of life, recognize cultural landscapes, encourage entrepreneurs and foster civic dialogue among diverse interests (Mitchell & Brown, 2003).

The central theme that transcends each of these new models is that the focus of any effort to combine the natural and cultural fields must be able to broaden the definitions it uses to determine

what is important and ought to be saved. The implication for historic preservation is that great opportunity exists to incorporate with land conservation efforts by explaining how historic land uses have shaped the current status of the environment in terms that are easily understood by other interest groups.

Historic Preservation: Significance and Integrity

Historic preservation is a resource-based discipline that has traditionally focused on the significance and integrity of historic structures. Determining what constitutes historic is largely based on the standards and guidelines set forth by the Secretary of the Interior and the National Park Service. There are four criteria used to establish significance of a historic site to make it eligible for the National Register of Historic Places (NRHP), which primarily address the designed landscape with special attention to the buildings featured within it. The four criteria are: (A) association with an event of historical importance; (B) association with a person of historical importance; (C) evidence of distinct craftsmanship, construction method or building style; and (D) retention of information of pre-historical or historical importance. Finally, for sites to be eligible for the NRHP, they must also have integrity, or enough of their original fabric and character to convey their historical significance.

In many cases, the criteria used to establish significance and integrity lack the flexibility to determine eligibility on sites that are not crafted, where history is written in less obvious terms or where the historic site changes (Rottle, 2008). This is especially true for landscapes, where the state of the land may not fall under one specific criterion. Landscapes boundaries are hard to determine, due to scale and the fact that different types of resources or pieces of history may be encompassed in one landscape. In terms of integrity, landscapes are in a constant state of change, which means their distinguishing features may evolve over time. For example, agricultural land use alters the nature of the land almost seasonally. Under these circumstances, determining integrity needs to acknowledge that what currently exists may not in the future, even though the character of the resource remains.

Although there is a growing concern for incorporating non-structural values (such as social, cultural and natural) into inventories of historic places, the field remains largely focused on buildings. For example, when considering a cultural landscape, the determination of significance focuses on site orientation and the spatial position of buildings in relation to one another, which often overrides the importance of the land itself (Lyons & Cloues, 1998). Because of this, the criteria to determine significance need to go beyond architecture to encompass the many other values associated with history and culture, especially in a nation with an increasingly diverse population representing many different histories, values and interests (Lee, 2004). Of course, the long-term preservation of the resource must be able to withstand ever-changing models for determining significance, so that history remains and preservationists do not alter the resource to fit contemporary interpretations of the human experience (Morton, 1998).

Because of preservation's historic building focus, the field is often regarded with relative wariness due to stringent requirements set forth by the Secretary of the Interior's widely used standards

for treating historic properties.³ Property owners and other government agencies or divisions are apprehensive to committing to preservation practices due to large commitments for treating historic places. Some landowners or programs that seek to preserve land will avoid properties with historic structures due to the requirements for preserving the building, which may be a costly time and money investment over time. Even though quality and high standards are necessary, they may also be the source of conflict for fields with goals similar to historic preservation.

The isolation of preservationists is perpetuated by the widely held fear that preservation includes keeping the historic resource in a specific time period. Most preservationists would now agree that healthy preservation means allowing the resource to evolve over time, paralleling the notion of succession in ecosystem change (Brand, 1994). Overall, it appears that flexibility in determining the historic resource, with less attention to lone buildings and more attention to the evolution of the place through time, will allow preservation to more closely associate with other efforts to protect rural areas and natural lands.

Historic Preservation and Land Conservation

Like many industries, interests and professions, historic preservation is stepping up its environmental efforts in a time when the degradation of the natural world is an unintentional byproduct of current standards of living. Currently, some of the hot topics of discussion in preservation revolve around making historic buildings more energy efficient by lessening energy demands. The goal is to find ways (through funding mechanisms, new technologies and education) to make old buildings meet current operating standards in sustainable ways (Elefante, 2007). Many cities are filled with abandoned buildings that could be adaptively reused to accommodate growing populations and business expansion. Another growing discussion topic is the protection of rural areas as cultural landscapes; the environmental benefit is that this helps prevent sprawl and the destruction of valuable ecological areas. As a way to instill environmental elements in preservation activities, incentives to rebuild existing developed areas are being used in addition to programs that seek to preserve areas where further growth consumes limited stocks of undeveloped land.

One way preservationists are building on environmental elements in the field is through identifying and protecting cultural landscapes that often include large natural areas. The National Park Service recognizes four types of cultural landscapes: historic sites (battlegrounds), designed (plantations and gardens), vernacular (farmlands or working landscapes) and ethnographic (traditional sites and uses). There are three systematic steps for analyzing these types of landscapes: identifying landscape characteristics; evaluating the landscape against the National Register criteria and standards for integrity; and developing a plan for its treatment and management. In many cases, mostly pertaining to vernacular landscapes, it is harder for preservationists to assign significance to areas where the predominant land use is common as opposed to historic, such as farmlands as opposed to plantations or gardens (Rottle,

³ Additional information on the Secretary of the Interior's Standards for the Treatment of Historic Properties can be found at: <http://www.cr.nps.gov/hps/tps/standguide/>

2008). In ethnographic landscapes, it is hard for preservationists to identify culture that is not their own in areas where other cultures have a different concept of land use. For instance, it is difficult for Native Americans to articulate the cultural meaning of native lands within a system that celebrates buildings and design.

Different labels encompass the variety of tools available for protecting cultural landscapes. The National Park Service has used Rural Historic Districts to signify areas that maintain a unique rural quality of life. Loudon County in Virginia provided local protection for rural areas by adopting Cultural Conservation Districts as part of the county's zoning ordinance. These designations seek to protect distinct land uses, buildings and sense of place relative to the local environmental setting (Loudon County Zoning Ordinance, Article 6). Districts are afforded protection through the zoning ordinances by limiting the allowable scale, design and type of nearby development and mandating that property owners comply with guidelines that preserve the character of the rural area.

What is interesting about these developing discussions is that the environmental ethic is part of preservation by design. For example, in "The Greenest Building Is...One That Is Already Built," Carl Elefante explains how reusing existing buildings prevents the development of rural land and limits or eliminates the consumption of new building materials (Elefante, 2007). This is why a recent *Forum Journal* (Fall 2010, vol. 25, no. 1), entitled "Bridging Land Conservation and Historic Preservation," discussed the similarities between the natural and cultural fields, identifying several overlapping goals, including

- Preserving community character and cherished landscape features;
- Maintaining a high quality of life now and for the future;
- Managing growth to prevent the destruction of significant resources;
- Adopting plans and policies that identify and protect valuable local sites;
- Building local stewardship to respect the value of physical resources; and
- Leveraging local capacity and assets to build sustainable communities.

Even though there is overlap between the land conservation and historic preservation camps, they consistently work apart with little interaction, while competing for funding and political support. Integrating preservation with land conservation must find common ties between historic elements of a landscape and the land's current use and value (Melnick, 2000).



CHAPTER 3: THE CHESAPEAKE BAY AND LAND CONSERVATION

The Chesapeake Bay is the third largest estuary in the world, fed by eleven major rivers, including: the Susquehanna, Patapsco, Chester, Choptank, Patuxent, Nanticoke, Potomac, Pocomoke, Rappahannock, York and James. It is also a system that cleans water, provides species habitat, enhances biodiversity and retains ecologically valuable wetlands. It is roughly 4,429 square miles in size and is affected by a watershed that covers over 64,000 square miles of land across Washington, DC, and six states: New York, Pennsylvania, Delaware, West Virginia, Virginia and Maryland. Chesapeake habitats in freshwater, saltwater, marsh and tidal areas support 3,600 plant and animal species, some of which are endangered or threatened, making it one of the most sensitive and biodiverse areas in the country (Chesapeake Bay Program, 2009). Its size and unique natural features are a large reason why it is the first estuary in the country to have a restoration and protection plan.

Apart from its land and water resources, the Chesapeake Bay supports the livelihood of many cultures and rural groups, including: watermen, Native Americans, timber harvesters and farmers. Within its watershed, historic landscapes, structures and archeological sites are the physical remains of events, stories and traditions of the nation's history (Chesapeake Bay Program, 2009). In the early 1600's, Captain John Smith explored the Chesapeake Bay and initiated the English colonization of the New World. In the late 1700's, the Chesapeake Bay was the battleground for America's fight for independence and later, the War of 1812. In the nineteenth century, the Chesapeake delineated the dividing ground that separated the Confederacy from the Union during the Civil War. It has also provided the resources that supported the growth of major



Source: Flickr Author: elipousson

Image 3. Historic re-enactments in the Chesapeake region tell stories of the battles of the Revolutionary, War of 1812 and Civil wars.

Mid-Atlantic coastal cities, including Baltimore and Washington, DC. The same land use pressures that threaten the water quality of the Bay are also impeding on significant cultural lands that are nationally cherished. Historic battlefields, cultural landscapes and farmlands comprise large areas of the watershed. Preserving these lands is as much a part of protecting the natural qualities of the Bay as it is for protecting our own heritage.

Land conservation is becoming an increasingly important part of restoring and protecting the Chesapeake Bay. The Bay, although a cherished national resource, is in critical condition due to urban, suburban and agricultural land uses. Sediment and nutrient loading from stormwater runoff have degraded the water quality of the Chesapeake. Efforts to restore the Bay's water quality are focused on land use in addition to source pollutants (Environmental Law Institute, 2009). Projects to protect the Bay include land conservation as a tool to improve water quality and restore wetland habitat. In addition, with the looming threat of sea level rise, the conservation of the low-lying lands around the Bay is attracting attention to ensure sustainable future investments. The Chesapeake Bay Commission stated in 2001, "How we treat the land profoundly influences the quality of the water. Thus, land-use decisions may well be the most important factor in the success or failure of our efforts to restore and protect the Chesapeake Bay" (Chesapeake Bay Commission, 2010). Protecting the land within the watershed is crucial for protecting the bay itself.

Land Uses in the Chesapeake

Throughout the time the Bay region was settled (by indigenous and European populations), its highly productive soils have sustained agricultural activity. Today, nearly a quarter of the Bay's watershed is in agricultural production, which provides valuable egg, meat, grain and vegetable products

(Chesapeake Bay Program, 2009). While agriculture is an important part of the local economy and way of life, the extensive use of fertilizers, pesticides and animal manure have had adverse affects on Bay water quality through nitrogen, phosphorus and sediment loading (Chesapeake Bay Program, 2009). The Chesapeake Bay



Image 4. Sediment loading in the Anacostia River negatively affects the Chesapeake Bay.

Program reported that agriculture, as the second most predominant land use in the watershed (behind forests), was the largest source of pollutant loading and water quality impairment, which is a large reason why nutrient and sediment load levels have been substantially reduced between 1985 and 2005 (Chesapeake Bay Program, 2007). Programs designed to restore Bay health are working with farmers to establish new agricultural techniques and land use policies that minimize pollutant loading while protecting economically viable farms.

Other significant sources to water quality impairment are attributed to urban and suburban development. With growing populations and increasing demand for land to accommodate growth, the Chesapeake Bay is being affected by new development and the loss of undeveloped land. Development pressure surrounding the Bay is largely attributed to high real estate values in urban neighborhoods and cheaper land in rural areas and expanding metropolitan areas around Washington, DC and Baltimore (Federal Leadership Committee for the Chesapeake Bay, 2010). New development results in the loss of permeable surfaces, which help reduce the volume and improve the quality of runoff, and the increase in urban runoff from roadway runoff, which contains heavy metals, trash and oil (National Research Council, 2009). Between 1990 and 2007 it is estimated that impervious surface area in the watershed increased by 34%, even though there was only an 18% population increase (Chesapeake Bay Program, 2009). As a result, growth management is an important part of protecting the Chesapeake Bay.

Within the Chesapeake Bay watershed in Maryland, there are land preservation programs at the federal, state and local level. Many programs are designed or operate through partnerships across different levels of government or in collaboration with private entities, such as local landowners, farmers, environmental organizations, developers and land trusts. Efforts to restore the Bay are leveraging these programs and partnerships to protect natural and cultural features that define the Chesapeake.

National Natural and Cultural Programs in the Chesapeake

Land preservation addresses cultural and natural resource protection while also protecting undeveloped land, managing growth, providing recreational and educational opportunities and protecting viable farming operations. There are several national programs in the Chesapeake region that are examples of how cultural and natural resources share a role in land preservation under an array of different value-centered programs, including growth management, economic, recreational, agricultural and natural interests in the land.

Economic Growth and Downtown Revitalization

The National Main Street program is designed to direct growth back into historic town centers by revitalizing historic Main Streets into vibrant urban cores. The program is administered by the National Trust for Historic Preservation (NTHP), which provides technical assistance and capital connections for local Main Street managers. By focusing development in existing buildings and historic commercial corridors using small-scale strategic infrastructure improvements that capitalize on historic resources,

the Main Street program is able to revitalize developed areas, reuse historic structures, preserve open space and provide economic growth for local businesses (National Trust for Historic Preservation, ND). The Chesapeake has seven Main Street communities on its shore and many more in its watershed. The Annapolis Main Street program, for example, has successfully revitalized parts of the city's older infrastructure and focused new growth in already developed areas, thus preserving rural and undeveloped land.

Recreational and Educational Resources

The Department of the Interior manages parks, trails and heritage areas that offer both a natural and cultural element within a recreational or educational context. The National Park Service (NPS) administers several landscape scale programs that encompass cultural attributes in protecting land.

National Parks

The Chesapeake watershed is littered with National Parks that preserve significant landscapes with cultural and natural resources. Many National Parks preserve battlegrounds of the Revolutionary and Civil wars. National Parks also preserve sites that exemplify regional development and unique settlements, such as Oxon Cove Farm, Greenbelt Park, the Baltimore Washington Parkway and the Chesapeake and Ohio Canal. Natural resources are a central theme to most parks, such as Assateague Island National Park in southern Maryland's Atlantic Shore and Great Falls National Park on the Potomac River between Virginia and Maryland.

National Heritage Areas

National Heritage Areas are places with natural, cultural and historic elements that are nationally significant and can be supported through heritage conservation and economic development efforts. The Journey Through Hallowed Ground National Heritage Area, for example, encompasses areas between Pennsylvania and Virginia. The goals of this heritage area are to protect historic land and resources related to the Civil War, create educational and recreational amenities and leverage cultural sites and historic events in tourism opportunities for the benefit of the local economy (National Park Service, ND).

National Trails

In addition to heritage areas and National Parks, the NPS administers the National Trails System that provides a recreational resource with historic features. In Maryland, the Captain John Smith Water Trail offers boaters scenery that evokes seventeenth-century landscapes along the rivers and tributaries feeding the Chesapeake Bay. Also in Maryland, the Star Spangled Banner Trail documents the routes troops traveled while fighting in the War of 1812. This trail connects historic sites through trails while finding ways to protect landscapes related to events of the war. The Washington-Rochambeau National Historic Trail follows the routes of allied French and American troops during the Revolutionary War. The relevance of a National Trail is that they are able to capture significant national historical stories within

a natural context for the benefit of recreationalists and the general public. While they do not explicitly work to protect lands, they do build stewardship around natural and cultural resources under one recreational amenity (National Park Service, 2010).

Even though National Heritage Areas and National Trails are administered by the NPS, it is up to private citizens to: propose the area, identify its distinctive features and create a long term management plan for the resource. The role of the federal program is to provide limited funding, Congressional designation, advice and support for becoming a heritage area or trail and guidance on the benefits of the program. Without private interest or organizations, the likelihood of a heritage area or trails success relies on federal employees who may lack local knowledge and sense of ownership.

Agricultural Resources

The U. S. Department of Agriculture (USDA) administers the Conservation Resource Enhancement Program (CREP), which partners with state and local governments to offer incentives for farmers who keep land out of production for ten to fifteen years in order to protect, restore or preserve environmental features on agricultural lands (Farm Services Agency, 2011). In Maryland, the program seeks to enroll 16,000 acres of viable cropland and forestland and provides additional incentives for landowners who establish riparian buffers to restore wetlands (National Resources Conservation Service, 2011). While part of the program focuses on natural resource protection, the main purpose of the incentives are to keep farmers farming, encourage sustainable and ecologically sensitive farming practices and maintain agricultural tradition. The hope is to keep large landowners from trading agricultural earnings for higher returns on subdividing land and short-term real estate gains.



Source: Flickr Author: rebecca

Image 5. An outbuilding at the Java Farm in Anne Arundel County preserves cultural resources within an agricultural context.

Natural Resources

Currently, federal agencies are developing a land preservation program through an executive order to restore the health of the Chesapeake Bay. On May 12, 2009, President Barack Obama signed The Chesapeake Bay Protection and Restoration Executive Order 13508 as a mandate to "...protect and

restore the health, heritage, natural resources, and social and economic value of the Nation's largest estuarine ecosystem and the natural sustainability of its watershed." The main priorities are to restore water quality, recover habitat, and sustain fish and wildlife. The last goal discusses the need to conserve landscapes and increase public access, in connection with the America's Great Outdoors initiative to provide recreational and educational resources for public benefit and ecological health (Federal Leadership Committee for the Chesapeake Bay, 2010). Through this last goal, the plan identifies and protects Treasured Landscapes, which are defined by their ecological and cultural values that include: habitats, watersheds, cultural resources, working landscapes and recreational areas (Environmental Law Institute, 2009). Treasured landscapes are designated if the lands they encompass are also listed on multiple federal or state plans that reflect goals related to ecological or cultural resource protection in the Chesapeake. While a formal plan is being adopted to implement the executive order, federal agencies are trying to quantify the ecological return on conserving unprotected lands in order to establish incentives for landowners willing to protect treasured landscapes for the health of the Chesapeake Bay.

Maryland Land Preservation

Maryland is one of the most progressive states in terms of developing programs to protect natural areas, largely due to the anticipated effects on the Chesapeake Bay. The state has enacted legislation in support of sustainable development, developed strong farmland and forest protection programs and found new opportunities for state parks and recreational areas. Despite these efforts, development pressure remains high in many rural areas due to: large transportation networks; the concentration of military bases, facilities and federal contractors; two metropolitan areas and a strong regional economy. The lure of federal resources is a major attraction for much of the region's development. The state is constantly working to improve current programs to manage growth by focusing efforts in targeted areas.

Much of Maryland's environmental ethic can be attributed to the smart growth movement that has sought to curb rampant development across natural lands. Sprawl is considered the greatest challenge to land use and its effects are evidence of a need to focus new development to accommodate population growth (Irwin & Bockstael, 2004). The excessive conversion of open space, automobile and foreign oil dependence, increasing costs of public services, water pollution from on-site septic systems and runoff from impermeable surfaces are all the direct result of sprawling development (Daniels & Lapping, 2005). A central premise of smart growth is to manage new development to accommodate increasing populations in vibrant communities built on principles of sustainability and healthy environments. Even though smart growth focuses on community development and transportation infrastructure that builds pedestrian-based, compact residential neighborhoods, it also advocates for the long term protection of open space and undeveloped land through zoning and land use policies.

Maryland has passed several smart growth bills, starting with the 1992 Economic Growth, Resource Protection and Planning Act (MD Ann. Code, State Finance and Procurement Article §5-7A-

01), which sought to focus new growth, protect undeveloped land and create funding sources for the Act's goals. In 1997, the state created Priority Funding Areas (PFA), which are areas in which state funds are focused to support future growth. Under this provision, future designated growth areas are targeted in already developed town centers to take advantage of existing infrastructure. Since 1997, there have been several additional laws that seek to build or strengthen incentives for investments in PFAs. Many subsequent laws require local governments to incorporate smart growth principles in local comprehensive plans, including identification of PFAs, water resource plans, municipal growth elements (House Bill 1141) and priority preservation areas in the Agricultural Stewardship Act of 2006 (MD Ann. Code, Agriculture Article § 2-518, House Bill 2). The Smart and Sustainable Growth Act of 2009 (Senate Bill 280, House Bill 297) strengthened local plans by requiring land use ordinances to reflect, or be 'consistent with,' the general plan, whereas before they were considered advisory in nature. Maryland passed the Sustainable Community Act in 2010 (House Bill 475), which incentivized redevelopment and restoration of existing buildings as a way to spur investment in existing communities. This bill evolved from a previous bill that created tax credits for the reuse of historic buildings. Each of these pieces of legislation were designed to build on principles of sustainability and smart growth, including growth management, land preservation and historic preservation, by prompting local planning agencies and governments to adopt a statewide vision for land use planning.

Land preservation is an integral part of growth management. Pairing programs that protect rural lands with programs that encourage redevelopment in developed areas combats sprawl from both ends. In the state's growth management strategies, historic elements are commonly blended into land preservation programs that are sold under three central themes: recreation and education, agriculture and the environment. This research investigates the parallels between cultural and natural resource management through the following state programs in addition to the two local programs administered by Prince George's and Anne Arundel counties.

Recreation and Education

Program Open Space

Program Open Space (POS) seeks to acquire lands across Maryland for parks, wildlife habitat, forests and cultural and historic resources for public benefit (MD Ann. Code, Natural Resources Article § 5-901 to 911).⁴ It is administered by the Department of Natural Resources (DNR) and is divided into two components. The state component acquires land for state parks and state lands. The local component is designed to help local jurisdictions acquire land with POS funding and state assistance. The federal Land and Water Conservation Fund, distributed by the National Park Service, and a percentage of the State Real Estate Transfer Tax provide the program's funding.

The program uses a three-step process for identifying areas in which to target funds for land

⁴ For additional information on Program Open space, see: <http://www.dnr.state.md.us/land/landconservation.asp>

preservation (Maryland Department of Natural Resources, ND). The Department of Natural Resources has identified 'Targeted Ecological Areas (TEA),' which are defined as the most significant environmental lands that protect rare species habitats, aquatic life and water quality (Greenprint Maryland, ND). Within TEAs, the program then distills the area even further by applying a Programmatic Screen to identify Annual Focus Areas, which uses criteria such as: access to funding, extent of surrounding protected land through other programs, consultation with local governments and the presence of willing sellers. Finally, the area is narrowed to prioritize parcels (not already protected) through a scoring process that measures ecological criteria, cultural resources, active land management plans, development threats and connectivity to other protected lands. This final step in the identification process is where POS incorporates historic or cultural assets on properties in ranking properties eligible for acquisition. Finally, POS projects must comply with the county's Land and Recreation Plan.

The most common form of land acquisition through POS funds is through fee simple title, which purchases all of the rights to the property. In addition to fee simple title, easements and donations are also allowed, as long as they allow public access. Land, or interest in the land, is primarily acquired for recreation, education and natural and cultural resource preservation.

In terms of historic and cultural resource protection, POS applications must comply with the Maryland Historical Trust Act of 1985 (MD Ann. Code, Article 83B §§ 5-617 and 5-618), which mandates that state projects, funding or permitting activities do not adversely affect historic properties listed on the Maryland Inventory of Historic Properties. Projects on properties with historic sites are subject to review by the Maryland Historical Trust (MHT), which ensures that the project does not negatively impact the historic resource. The POS manual advises that properties with historic resources are identified early in the



Image 6. A view of Jug Bay from the Patuxent River Park in Prince George's County provides scenic and recreational amenities for public users.

Source: Flickr Author: Cowtools

process and consultation with MHT is established in order to create an agreeable management plan or treatment schedule for historic structures and sites within the property.

On state lands that maintain historic structures, POS has established a curatorship program, whereby a citizen agrees to a lifetime lease of one dollar per year in exchange for the investment of their own funds toward restoring the structure (Maryland Department of Natural Resources, ND). At least \$150,000 of the curator's own money must be invested in restoring the property within the first five years of agreeing to the curatorship program. All work must be approved by DNR and MHT and comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Once restored, the historic property must maintain the original appearance of the building and allow public access at least three times per year. Through the curatorship program, participation and stewardship from private citizens becomes an integral part of protecting historic structures in a natural setting on state parklands.

Farmland and Agriculture

MALPF

The Maryland Agricultural Land Preservation Foundation was established in 1977 through the Maryland Department of Agriculture (MD Ann. Code, Agriculture Article § 2-501 to 519).⁵ The MALPF program is designed to preserve active farmland on prime soils and it is funded through agricultural land transfer taxes and supplemented with county funds designated to land preservation. The MALPF program sets specific requirements, in that only properties within specific areas are eligible for easement agreements. These areas need to be determined by the county, and approved by the state. In 2006, under the Agricultural Stewardship Act (MD Ann. Code § 2-518, House Bill 2), the state established Priority Preservation Areas (PPA) as areas in which to focus program expenditures by identifying growth management goals, maintaining environmental features and agricultural production and pursuing the goals within the county comprehensive plan. The PPA must be: large enough to support normal agricultural and forestry related activities, abide county ordinances and regulations and land use controls must be adopted so as not to interfere with agricultural or forestry activities. Finally, the county must commit to protecting at least 80% of the remaining undeveloped area of the PPA through easements and zoning and re-apply for certification of the PPA every two to three years. The state created a county certification process, which enables certified counties to retain 75% of the agricultural transfer taxes acquired within the county for preserving land in the future (uncertified counties are allowed to retain 33% of these taxes), designate their own PPAs and design the MALPF program specific to county needs.

Properties eligible for MALPF easements must meet several criteria, including property size, soil type, forest type, farming activity and number of dwellings. Properties must be: 50 acres in size, contain Class I, II or III soils (or Woodland Group 1 and 2 soils), be outside of the area's 10 year water and sewer plan and have a soil conservation plan approved by the area's Soil Conservation District.

⁵ For additional information on the MALPF program, see: <http://www.malpf.info/>

Landowners applying for MALPF easements must submit competitive bids based on the value of their land. Land is valued per acre as the fair market value minus the agricultural value of the land (the lower value between the land rent based on soil productivity or the average cash rent within the county over the last five years). Although the eligibility requirements for MALPF easements strictly focus on prime agricultural land, the effects of the program actively preserve rural character and agricultural tradition across the state, while also protecting valuable ecological and natural features of agricultural lands.

Natural Resources and Ecological Areas

Rural Legacy

The Rural Legacy program, administered by the Department of Natural Resources, was enacted in 1997 (MD Ann. Code, Natural Resources Article § 5-9A-01 to 5-9A-09).⁶ It is funded through Program Open Space funds and generated by the sale of development rights.

to preserve contiguous tracts of undeveloped lands, rich in natural and cultural resources, for future generations. Unlike POS, the Rural Legacy program does not promote public access; instead, it preserves the land's current use and restricts private landowners from developing or subdividing their parcels. The Rural Legacy process



Source: Flickr Author: shoresheila

Image 7. The Merkle Wildlife Sanctuary in the Patuxent River Rural Legacy Area in Prince George's County preserve wetlands and forests along the Patuxent River.

encourages local governments and land trusts to apply for the designation of a Rural Legacy Area, within which program funds may be used to purchase easements on private properties to preserve the land by retiring development rights on the property. Rural Legacy Areas are approved based on scores that measure:

- environmental, agricultural, and cultural resources protected
- surrounding development pressures and land use changes

⁶ For additional information on the Rural Legacy program, see: <http://www.dnr.state.md.us/land/rurallegacy/index.asp>

- significance of cultural and historical resources
- economic value of resource based industries (agricultural, timber, tourism and recreation).

In addition to scores, Rural Legacy areas assess: the degree of fragmentation, vulnerability to development, recent development in the area and the cost needed to preserve 80% of the defined area. Local sponsors of Rural Legacy Areas must apply annually for funding, which is used to provide incentives for easements on properties within the designated area. Incentives may come in several arrangements: easement purchase, fee simple purchase, taxes deductions through donations or installment purchase agreements. The ability of the Rural Legacy Area to leverage funds with additional outside money is also used to prioritize program funding. Sponsors are responsible for working with landowners, developing easement terms, engaging public participation, outreach through education and monitoring compliance of easement terms.

MET

The Maryland Environmental Trust (MET), within the Maryland Department of Natural Resources, was established in 1967 and it manages an easement program that relies primarily on donations (MD Ann. Code, Natural Resources Article § 3-201 to 211).⁷ Although some MET easements have been purchased using Rural Legacy funds, most of MET's easements are donated by private landowners seeking to preserve land and reduce their taxes obligations. The financial benefits of an MET donated easement are: federal income tax deduction, state income tax credit, federal estate tax benefit and property tax credit. These types of easements work well for wealthier landowners seeking tax deductions in return for the preservation of larger parcels of undeveloped land.

Typically, MET accepts easements that are 35 acres or more. Under specific circumstances, for instance if the property abuts other protected lands, easements on smaller properties will be granted. MET coholds almost half of its easements with local land trusts and other state agencies, in areas where local trusts need additional capacity or where properties encompass multiple resources that fall under other the specialization of other agencies. For example, MET coholds a number of easements with the Maryland Historical Trust (MHT) on properties that have historic features (structures, archeology sites, scenic byways, viewsheds or cultural landscapes) and ecological features, such as wetlands, forests or open space. The benefit of coheld easements is that agencies share responsibilities, including: monitoring easement compliance, actively seeking new easements or working with landowners to establish easement terms.

Historic and Cultural

The Maryland Historical Trust (MHT) also maintains an easement program to protect important historic sites and structures across the state (MD Ann. Code, State Finance and Procurement Article §

⁷ For additional information on the Maryland Environmental Trust easement program, see: <http://www.dnr.state.md.us/met/>

5A-325 to 326).⁸ These easements are created under four different scenarios, including: donations for charitable tax deductions, conveyance from state or federal to private ownership, in addition to the use of state funds or permits or on properties that receive state capital grants, bonds or loans. MHT easements do not require that the property is listed on the National Register of Historic Places, but do require that the property is eligible for listing. Easements held by MHT also require that public access, in terms amenable to the nature of the resource, be established. Finally, easement terms may focus on a specific feature or area of a property and do not have to cover the property in its entirety. Under this stipulation, a historic structure may be placed under easement while the rest of the property may still be vulnerable to subdivision or development, which may lead to the loss of cultural landscapes associated with historic structures.

Overall

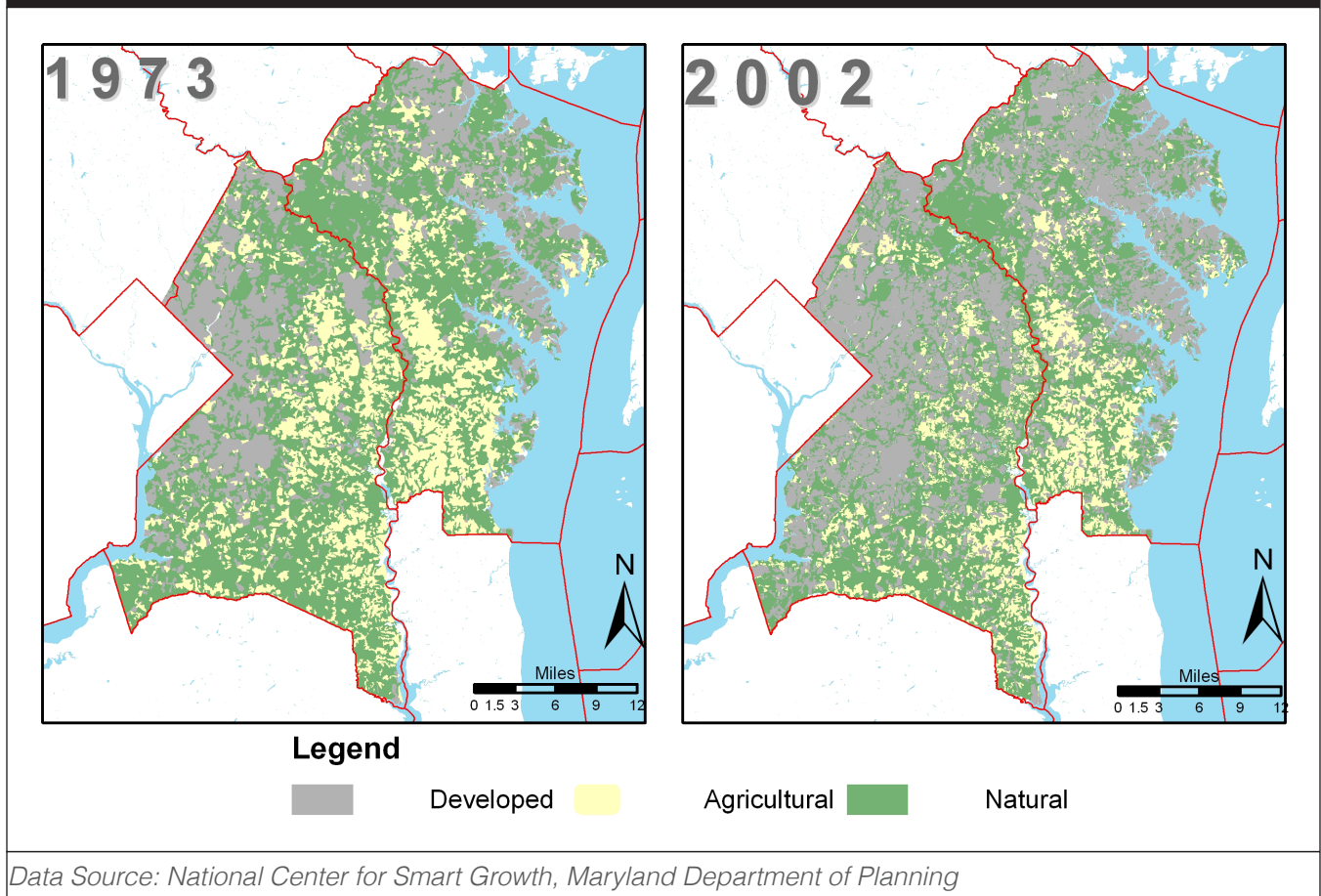
Private property owners have a variety of state programs to choose from in order to match specific properties and interests with options to protect land and land uses. Identifying where programs are able to balance multiple values can form the basis for collaboration between local organizations, private landowners and government agencies.

⁸ For additional information on the Maryland Historical Trust easement program, see: <http://mht.maryland.gov/easement.html>

CHAPTER 4: LOCAL LAND PRESERVATION

In Maryland, development pressure surrounding Washington, DC, is a major reason that nearby counties have created their own land preservation programs as a way to increase the mechanisms available to preserve land. This research focuses on Prince George's and Anne Arundel counties because of their rich supply of natural and cultural resources, valuable farmlands, location in the Chesapeake Bay watershed and the high development pressures associated with their proximity to the Washington, DC, and Baltimore metropolitan areas. Prince George's and Anne Arundel counties both absorb much of the new growth associated with transient workers commuting to the capital, due to the major transportation networks that provide easy access between rural and urban areas. County programs that control new growth and preserve distinct natural and cultural features are designed to meet the specific conditions

Map 1. Land Uses in Prince George's and Anne Arundel County in 1973 and 2002



within each county and to provide preservation mechanisms for lands not eligible for state programs.⁹

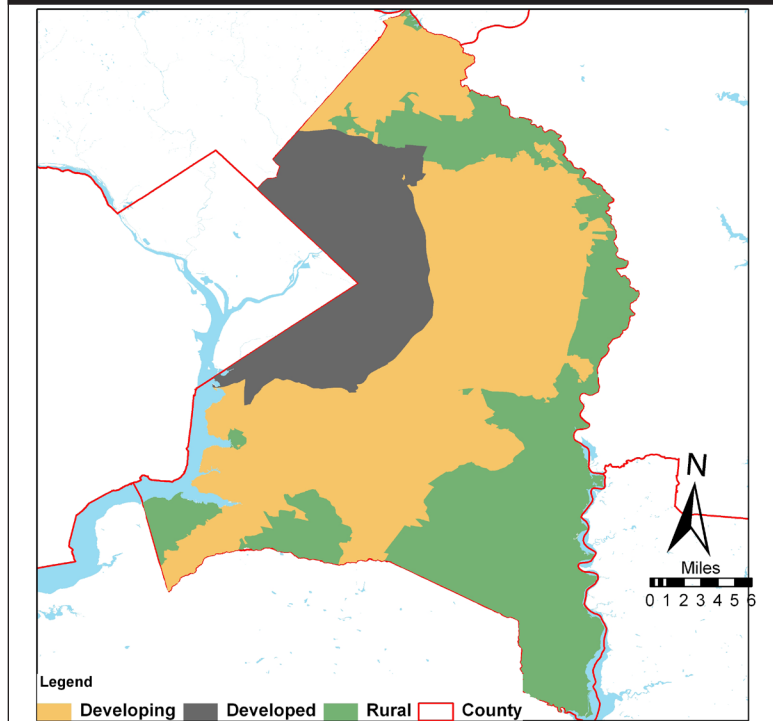
Prince George's County

Prince George's County has one of the wealthiest majority minority populations in the country and is a large source of federal employees. It is home to many federal agency headquarters, including: the National Security Administration, the National Aeronautical and Space Administration, U. S. Census Bureau and research facilities for the U. S. Department of Agriculture. High area incomes and employment opportunities contribute to a high quality of life. As of the 2010 Census, the county had a population of 863,420 residents spread over 310,675 acres, for a total population density of 2.78 people per acre (U. S. Census Bureau, 2011). Like many parts of the state, Prince George's County's population is growing; between 2000 and 2010, the population grew by 7.7%, which is slightly lower than the growth across the state at 9.0%.

The Prince George's County 2002 Approved General Plan divided the county into three sections, which outline the expected absorption rates of new dwelling units by 2025: the Developed Tier is planned to absorb at least 33% of new dwelling units, the Developing Tier is planned to absorb roughly 66% of new dwelling units and the Rural Tier which is to absorb less than one percent of new dwelling units. Most land preservation programs focus in the Rural Tier, which retains the majority of undeveloped land in the county.

The need for land preservation programs can be seen in changes in land use land cover data. For areas in production, the number of farms dropped from 473 in 1997 to 375 in 2007, for a loss of 21% of county farms (U. S. Department of Agriculture, 2007). In 2005, agricultural land use was 17.1% of the county, covering 47,591

Map 2. Prince George's County Tiers



Data Source: National Center for Smart Growth, Prince George's County Planning Department

⁹ County land was mapped according to land use land cover data from 2002 and 1973 from the Maryland Department of Planning. Land uses were grouped to show developed, agricultural and natural land. Developed land included all land uses in residential, commercial and industrial use categories. Agricultural land included all land uses related to agricultural production, grazing, pastures, feed lots and processing facilities. Natural lands include classified as: forest, wetlands and barren lands, such as rock outcroppings and beaches.

acres over 1842 properties. In 2009, 14.5% of county land was agricultural, which included 44,899 acres distributed over 1,914 properties.¹⁰ Most agricultural land is concentrated in the southeastern portion of the county. Residential development in rural and suburban areas is one of the largest contributing factors to the loss of natural areas and farmland in Prince George's County. Between 2005 and 2009, the number of developed parcels in the county increased by 6%, which may indicate a significant number of subdivisions.

Prince George's County has adopted numerous plans and strategies to protect rural and environmental areas. Cultural and natural resource protection are writ large across a number of these plans under different auspices. The active plans that promote landscape preservation, through either agricultural, natural or cultural lenses are:

- **2002 Approved General Plan**

The goals of the General Plan that relate to cultural and natural resource protection are: enhance quality and character of communities and neighborhoods; preserve rural, agricultural and scenic areas and protect environmentally sensitive lands. The main goals for the Rural Tier are to preserve large amounts of woodland, farmland, recreational areas, natural areas and rural character.

- **2011 Preliminary Priority Preservation Area Functional Master Plan**

The Preliminary PPA Functional Master Plan reasserts the 2002 General Plan's vision for the Rural Tier, with the goal of preserving 80% of the remaining undeveloped land within the PPA. Although the main focus of the PPA functional master plan is on agricultural and environmental lands and the economic values therein, rural character is a large target for determining lands to preserve. This plan establishes new boundaries for the county's existing PPA, bringing the county's MALPF program a step closer to state certification.

- **2010 Historic Sites and Districts Plan**

The Historic Sites and District Plan dedicates a section to cultural landscape preservation that encourages stewardship for the land, partnerships with environmental organizations and other land preservation programs and preserves significant landscape features related to cultural, scenic and historical qualities of the area.

- **2005 Approved Countywide Green Infrastructure Master Plan**

The primary goals and visions of this plan that protect natural and cultural resources are to: identify and protect contiguous areas of environmentally significant areas, protect rural areas, including working landscapes and adopt smart growth principles. One vision of the plan is to

¹⁰ Figures were determined using data from MD Property View, assembled by the Maryland Department of Planning.

protect rural areas, including working landscapes and farms, which directly preserves rural character.

Historic Agricultural Resource Protection Program and Purchase of Development Rights

Prince George's County established the Historic Agricultural Resource Preservation Program (HARPP) in 2006 as a way to preserve rural character and agriculture (Prince George's County Code § 29-126 to 136). In the same year, the County Council approved a Purchase of Development Rights (PDR) program under CR 82 of the 2006 legislative session. The HARPP and PDR programs are administered by the county's Soil Conservation District, with additional assistance provided by the Maryland-National Capital Parks and Planning Commission. The purpose of the programs are to implement the policies set forth by the County General Plan and Green Infrastructure Plan and preserve ecologically valuable areas and agricultural lands. The HARP program includes the preservation, protection and enhancement of "... properties that provide historic agricultural character, culture and practices," (Prince George's County Code § 29-126). Unlike the PDR program, the HARP program explicitly targets properties that maintain historic qualities (Clagett, 2011). Both programs are designed to purchase the development rights of the property from willing sellers and place easements on property that preserve the land in perpetuity.

The criteria to determine eligibility for the PDR or HARP programs are the same. For properties to be eligible, they must meet specific criteria: located in the Rural Tier (the mostly rural eastern division of the county of low density development); be zoned: O-S (open space), R-A (residential agricultural), R-R (rural residential) or R-E (residential estate) and be at least 35 acres in size (or 20 acres and contiguous with another protected property). In addition to location, zoning and size requirements, the HARP program requires the property have a historic element to be considered for the incentive based land preservation program. Under this last requirement, the program is able to directly connect cultural and natural resource protection under one incentive.

Anne Arundel County

Anne Arundel County is home to the Maryland state capital in Annapolis. With over 400 miles of tidal shoreline, the county has a unique identity formed around the Chesapeake Bay and the presence of crabbing and fisheries industries, watermen, sailing and bucolic landscapes. The county has a population of 537,656 residents distributed over 266,202 acres, for a total population density of 2.02 people per acre (U. S. Census Bureau, 2011). The county's population is growing faster than the state's population; between 2000 and 2010, the population grew at 9.8% (U. S. Census Bureau, 2011). Most of the population is concentrated in the northern section of the county, while the southern section retains the majority of the county's undeveloped and agricultural land.

Land use data in Anne Arundel shows the county has lost significant amounts of open space and agricultural land in the last decade. Of the total county land area in 2009, 19.1% was agricultural, which encompassed 50,857 acres distributed over 1,561 properties. In 1997, the county had 412 working farms

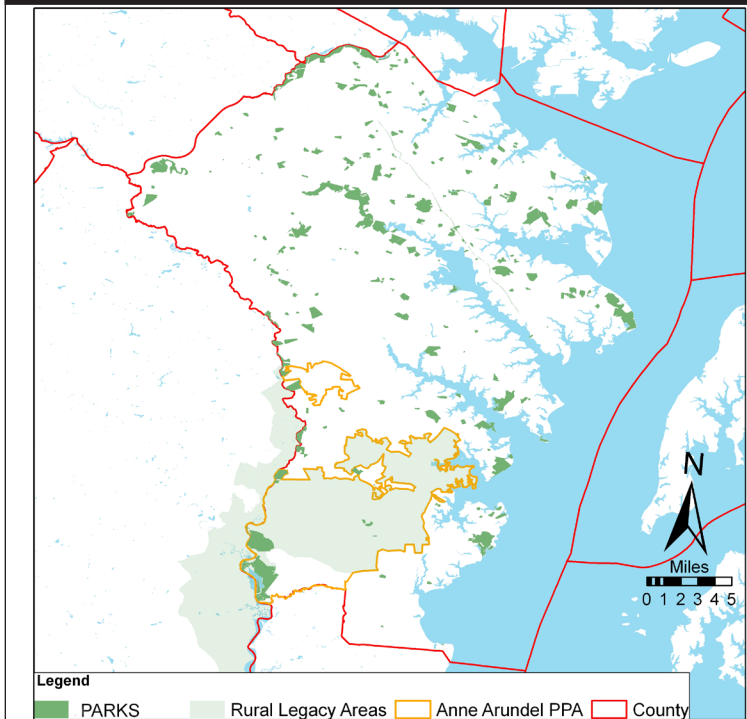
on 34,679 acres. By 2007, 377 farms remained on 29,244 acres, for a 16% loss of farmland (U. S. Department of Agriculture, 2007). Between 2005 and 2009, the number of parcels in the county increased by 3.2%, which indicates a modest increase in new subdivisions in recent years.¹¹ As a result, the county is committed to preserving valuable rural character, agriculture and natural land.

Anne Arundel County has drafted several plans that address land preservation and rural areas in their visions and goals.

- 2009 General Development Plan (GDP)**

The primary visions of the GDP are: balancing growth and sustainability; community preservation and enhancement; environmental stewardship and maintaining quality public services. The goals associated with these visions include rural land and historic resource preservation, directing growth from rural areas, strengthening land use policy to protect significant cultural and natural resources and promoting interagency collaboration for preserving these features.

Map 3. Anne Arundel County and Targeted Areas



Data Source: National Center for Smart Growth, Maryland Department of Natural Resources, Anne Arundel Recreation and Parks Department.

- 2006 Land Preservation, Parks and Recreation Plan**

The goals of the Land Preservation, Parks and Recreation Plan highlight goals from the General Development Plan that promote: the acquisition of park land and access to the Chesapeake Bay and its tributaries, preserve farmland and woodland and discourage growth in rural areas.

- 2002 Greenways Master Plan**

The primary goal of the Greenways Master Plan is to identify and protect a network of ecologically valuable areas for present and future generations and establish recreational,

¹¹ Figures were determined using data from MD Property View, assembled by the Maryland Department of Planning.

open space and transportation opportunities for public benefit. The strategies to achieve this goal are through restricting development, increasing access to public land and encouraging environmental stewardship.

- **2001 South County Small Area Plan**

The South County planning area in Anne Arundel County retains the majority of the county's rural and agricultural land. The visions of the plan are to: preserve agricultural, rural and historic qualities; restore and expand natural areas and enhance quality of life by improving community facilities.

Agricultural and Woodland Preservation Program

In 1990, Anne Arundel County established the Agricultural and Woodland Preservation Program (AWPP) to complement state-based agricultural preservation programs (Anne Arundel County Code, Article 17, Title 10). The purpose of this program is to supplement the state run MALPF program in order to capture smaller farms not eligible for MALPF funding (Polito, 2011). As a result, the Agricultural and Woodland Preservation program operates similarly to MALPF, with a 50 acre minimum size and 50% of soils must be Class I, II or III. Incentives for the county program are in the form of easement purchases, either through a lump sum payment or an Installment Purchase Agreement (IPA), on a per acre basis, which most recently was in the range of \$10,000 to \$15,000 per acre. The IPA option was recently added to the incentive options in 1999, as a way to spread the cost of purchasing an easement over time, in which the landowner receives interest payments before the purchase price is paid in full. Under these provisions, the county is able to offer multiple incentives for the varying needs of landowners.

The eligibility criteria for the county's agricultural preservation program are similar to the MALPF program, although more flexible. The county's agricultural preservation program is encouraged within the county designated PPA, approved through the state's certification of the county's MALPF program. Properties must contain 50 acres or more of agricultural land (or 10 acres of contiguous woodland), be located outside of the county's water and sewer 1, 2 and 3 categories outlined by the County's Master Plan and have a soil and water plan approved by the county's Soil Conservation District. Eligible properties may apply to be included as a county agricultural district, which allows tax credits for five to ten years and prevents subdivision within that time frame. Agricultural districts are short-term commitments not to develop or subdivide the land, as after the terms of the district agreement are fulfilled, the property owner may terminate the agreement or apply for an easement purchase, which will protect the land forever. While this program does not explicitly mention scenic, cultural or historic resource protection, it does actively pursue the preservation of rural character by sustaining agricultural activity.

CHAPTER 5: ASSESSING LAND PRESERVATION AND CULTURAL RESOURCE MANAGEMENT

The evaluation of land preservation programs was done through mapping protected areas and targeted areas for each program as well as cultural or historical sites and overlays, conducting interviews with program administrators and reviewing program legislation and design. Assessing where and how land preservation programs encompass cultural or historical elements will illuminate challenges and opportunities and inform further recommendations to build strong collaborative efforts between preservation and environmental agencies and organizations.

Spatial Analysis

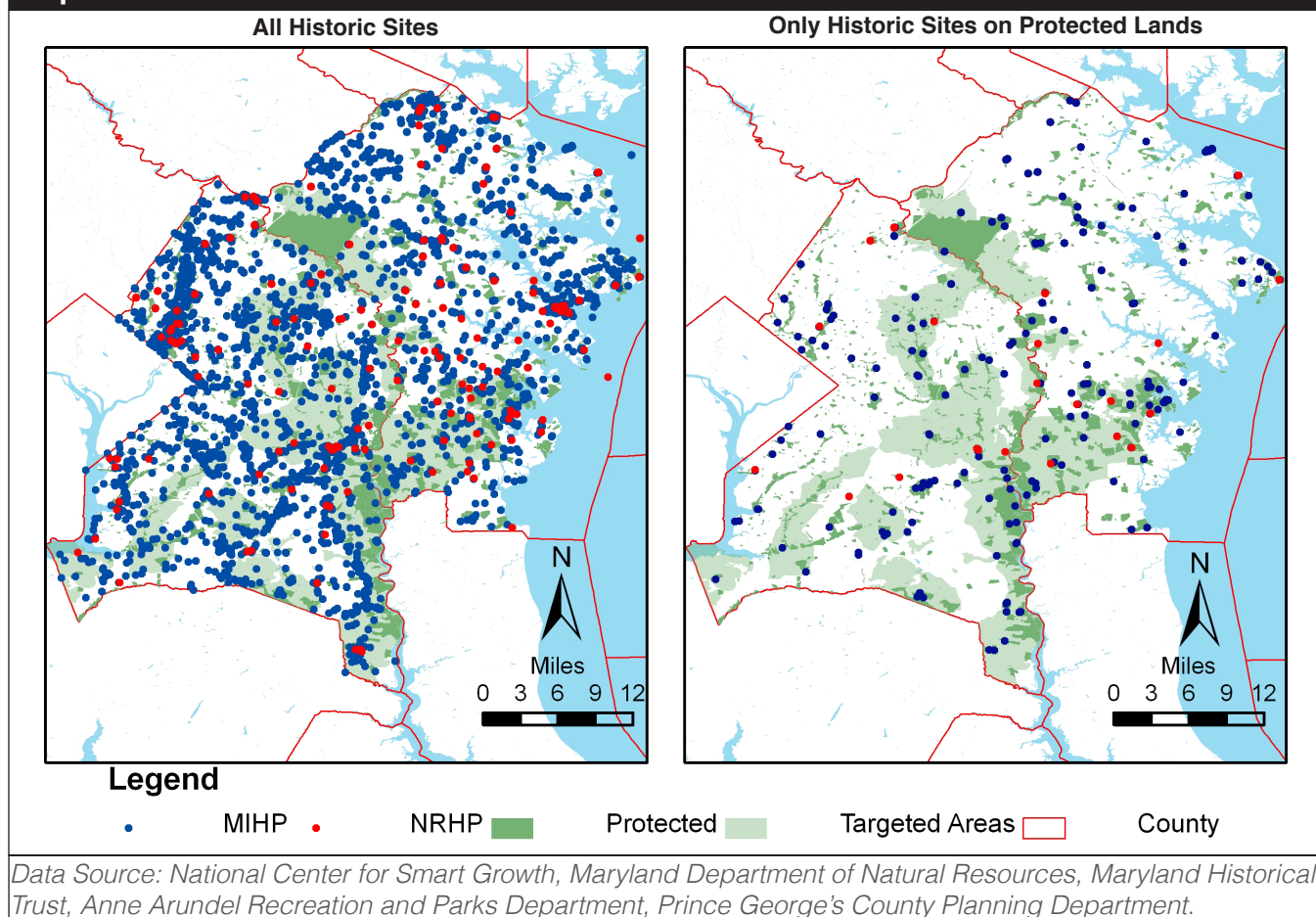
Cultural resources were overlaid with protected and targeted land under three state (POS, MALPF and Rural Legacy) and two local programs (HARPP in Prince George's and the Agricultural and Woodland Preservation program in Anne Arundel County). Land preservation programs were mapped according to where land is protected and where programs are targeted. Protected lands show where land is already preserved, either through easements or acquisition. Targeted areas show where land preservation is encouraged, according to the specific boundaries established by each program. Additionally, the state and local land preservation programs were categorized according to the primary values under which each is marketed. The MALPF and both local programs (Prince George's HARPP and Anne Arundel's Agricultural and Woodland Preservation Program) are targeted toward agricultural land. MET and Rural Legacy easements are promoted under natural or environmental auspices. State, county and local parks represent POS protected land for recreational purposes. Identifying types of programs that capture multiple values will illustrate where historic preservationists may achieve the most productive partnerships.

Historic and Cultural Resources

Spatial data depicting historic resources (including sites, structures, cemeteries, scenic byways, archeology sites) was obtained from MHT. Historic sites include sites listed on the Maryland Inventory of Historic Places (MIHP) and the National Register of Historic Places (NRHP). These sites are afforded a basic level of protection if a state or federal action is required for a project on historic properties. Properties with historic easements providing more thorough protection through the MHT were distinguished from properties that were inventoried on the MIHP or NRHP. County designated historic sites and resources were available for Prince George's County, provided by the County Planning Department. Anne Arundel's county inventory of historic sites closely mirrors the MIHP; for the purpose

of this report, historic sites on the MIHP were also used to depict county listed historic sites in Anne Arundel County. Sites on the county inventories are afforded more protection through the county historic preservation ordinance, which may prevent demolition, restrict development or make specific design requirements for new construction.

Map 4. Historic Sites and Historic Sites on Protected Lands



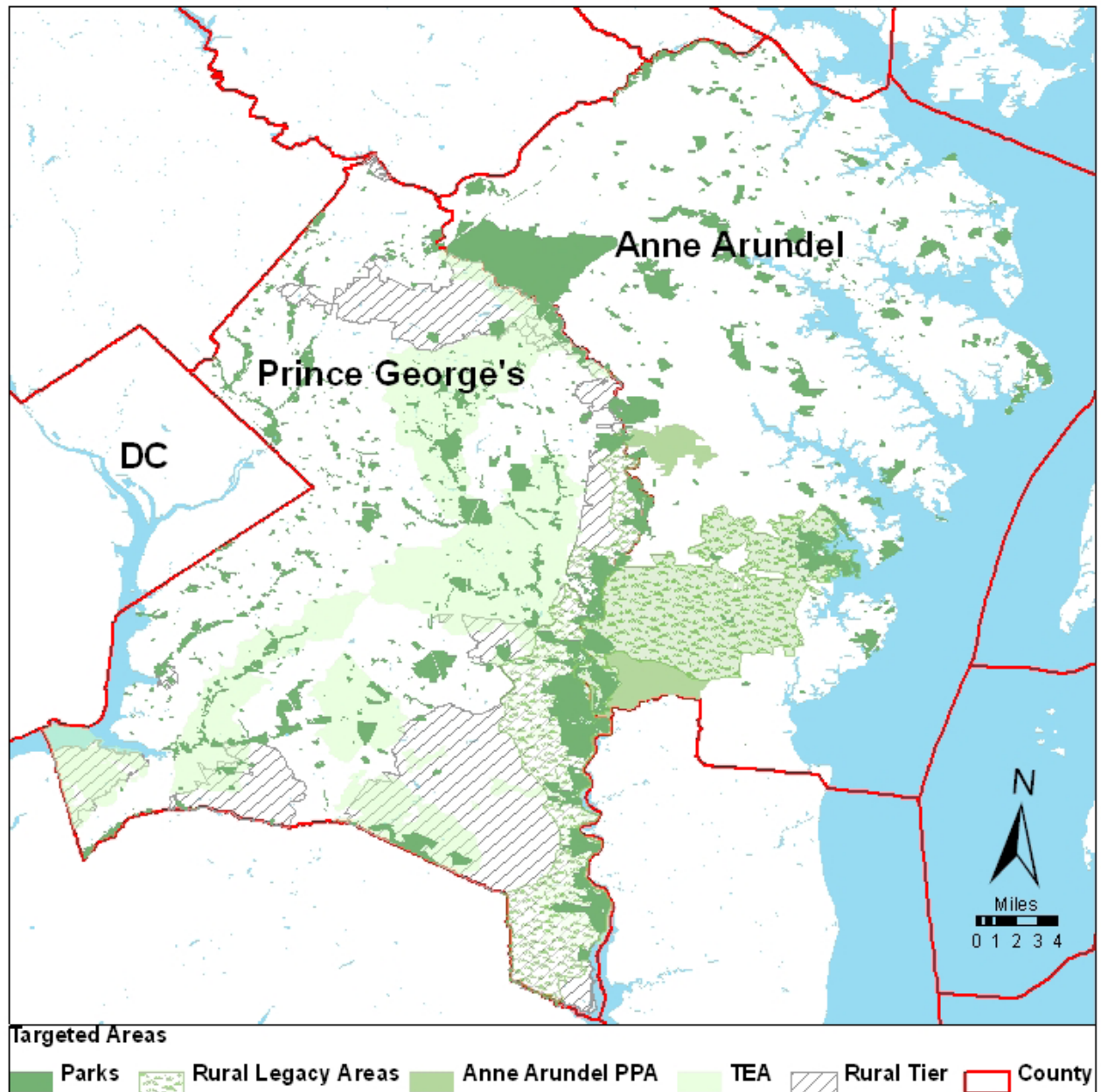
Protected and Targeted Lands

Land preservation programs were mapped to show protected land and areas where programs are targeted. Protected lands include properties with easements or parks. Targeted areas depict land that is eligible for protection through the one of five programs. Some programs are restricted within certain areas, while other programs are encouraged but not required in defined areas. The Rural Legacy and HARP program are both restricted within defined areas; the MALPF, POS, MET and Anne Arundel's Agricultural and Woodland Preservation programs have targeted areas within which they are encouraged but not required to focus.

Since only listed historic sites were used to show historic areas, many properties that may be eligible for the county inventories, the MIHP or the NRHP are missed in this analysis. Unfortunately, the State has not formally defined any cultural landscapes, which means the environmental setting for many

historic structures is amendable under certain circumstances, for instance review for development projects. Additionally, many historic sites are tightly bounded around the structure, which means much of the historic landscape is vulnerable under the limited protection afforded to historic structures.

Map 5. Targeted Areas for State and Local Land Preservation Programs



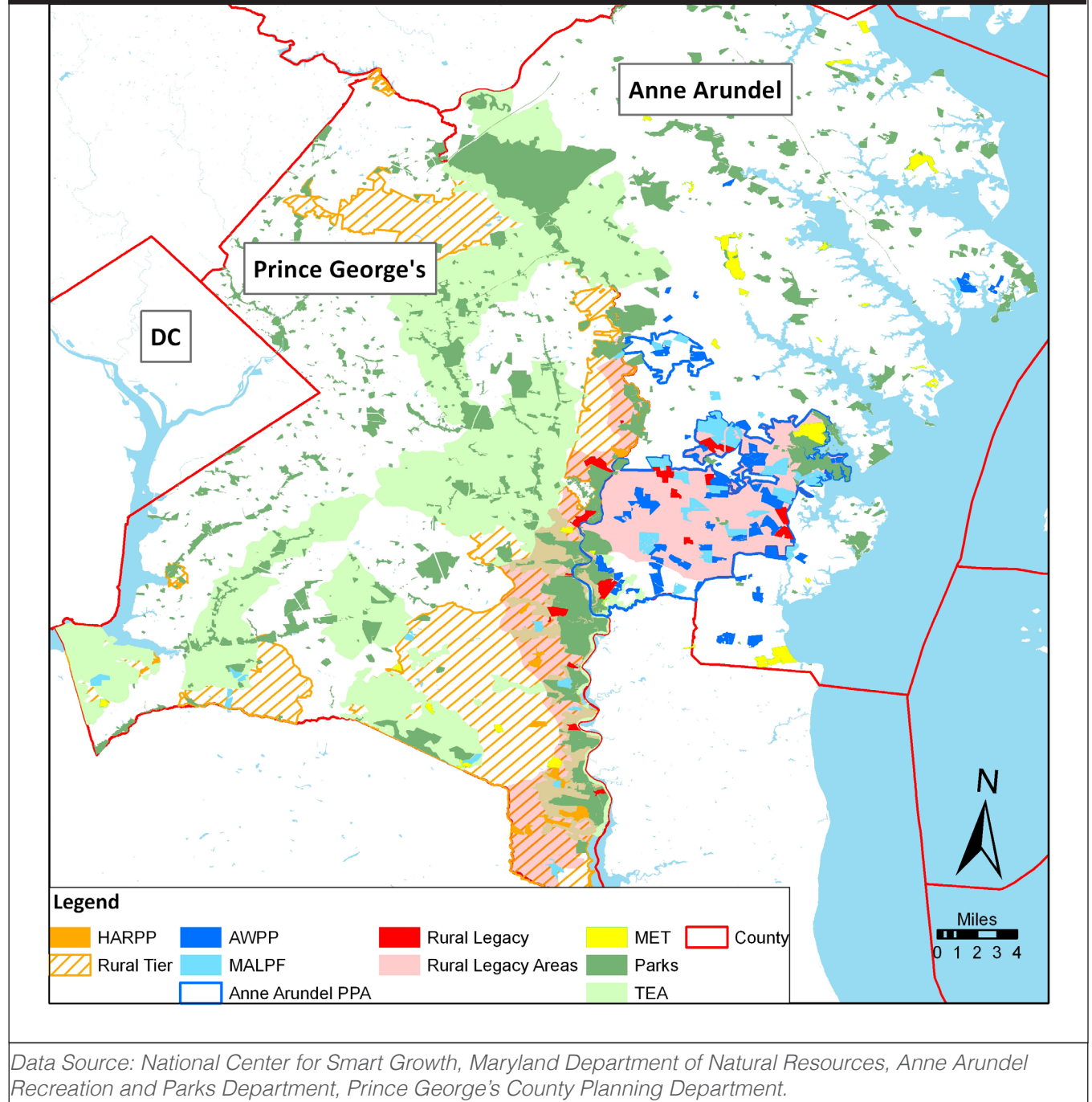
Data Source: National Center for Smart Growth, Maryland Department of Natural Resources, Anne Arundel Recreation and Parks Department, Prince George's County Planning Department

MALPF

In Prince George's County, the MALPF program is administered through the Soil Conservation

District; in Anne Arundel County, it is under the Department of Parks and Recreation. Currently, Anne Arundel County has a state certified program and a county designated PPA. Prince George's County is applying for state certification in 2012 and is seeking approval of a proposed PPA.¹²

Map 6. Land Protected in Targeted Areas



Rural Legacy

¹²

As of this report, the boundary of Prince George's PPA is not currently available to the public.

The Rural Legacy program identifies specific areas in which Rural Legacy easements are purchased or incentivized. There are two Rural Legacy areas between the two counties. In the Rural Tier of Prince George's County, the Patuxent River Rural Legacy area lines the western shore of the Patuxent River and consists of 34,984 acres. In southern Anne Arundel County, the Anne Arundel South Rural Legacy Area encompasses 32,571 acres and spans the southern section of the county between the Patuxent and Rhode rivers on the Chesapeake Bay. The Anne Arundel South Rural Legacy area generally follows the county designated PPA, although it is smaller by nearly 7,000 acres.

Program Open Space and MET Easements

The Department of Natural Resources oversees the Maryland Environmental Trust and Program Open Space. As a result, the agency encourages land protection within specific areas and on specific parcels. To capture the broadest area in which funding is typically used, Targeted Ecological Areas (TEA) are outlined to show where DNR primarily encourages land preservation. Public lands that were acquired with POS funding are depicted by state and county parks, Board of Education parks and wildlife management areas (or other lands owned by the DNR).

Program Design and Administrator Experience

In addition to mapping the overlap between historic sites and protected and targeted lands, land preservation programs were evaluated using the legislative intent and design of programs, as well as the experience of state and local program administrators. The policies and plans that establish land preservation programs and the plans that guide their implementation were reviewed to discover where the different strategies for protecting land also incorporate cultural or historic elements. Interviews were conducted with staff of the land preservation programs, as well as MHT, the county Historic Preservation Commissions and the Department of Natural Resources. Program administrators offered a historical perspective on land preservation, program changes over time, difficulties in administering or building support for the program and their overlap with historic preservation activity. At the county level, regional administrators of the MALPF, Rural Legacy and county programs explained how they administer their programs, where different programs are focused, what interests or values landowners express and where their programs encompass historic resources.

CHAPTER 6: RESULTS AND IMPLICATIONS

Between Prince George's and Anne Arundel counties, there are roughly 4,300 historic properties listed on the Maryland Inventory of Historic Properties (MIHP). These properties range from bridges to tobacco barns to mansions and include 33 state designated historic districts. Additionally, there are roughly 2,400 archeological sites between the two counties. There are 164 historic places listed on the NRHP in Prince George's and Anne Arundel counties. Both counties maintain their own lists of historic resources, which closely mirror the MIHP and provide additional protection for sites not covered by

federal or state laws and regulations. Some listings are specific to the structure while others capture vast landscapes that cover species habitats, rural communities and productive farmland. With a rich supply of historically significant properties, there is significant overlap between historic properties and many protected lands. There is much more overlap when looking at areas where land preservation programs target funding and programmatic activity.

Protected Lands

Historic sites are afforded protection where they are covered by easements or protected lands. Of the total 613 properties protected through state programs in Prince George's County, protected land programs overlapped with 49 MIHP sites, 1 NRHP site, 47 archeological sites and 3 state easements on historic properties. Roughly 8% of protected properties contain a site on the MIHP and 7% contain a county designated site. Of the 475 properties protected through state programs in Anne Arundel County, protected lands overlapped with 21 MIHP sites, 8 NRHP sites, 139 archeological sites and 8 state historic easements. Here, more than 18% of protected properties contain a MIHP listed historic sites.

Local land preservation programs, which are more specifically tailored to the conditions of the county, overlapped with 25 historic properties. In Prince George's County, there are 14 properties protected by HARPP that overlap with 4 MIHP sites and 4 archeology sites. Roughly 29% of protected properties under local programs contain a historic site that is listed on the MIHP or the county inventory.

Historic Sites		
	Prince George's	Anne Arundel
MIHP	2026	2266
NRHP	73	91
County Designated	548	N/A
Historic Sites	412	N/A
Historic Resources	136	N/A
Environmental Settings	402	N/A
State Districts	22	11
County Districts	2	1
Archeology Sites	1000	1382
MHT Easements	31	66

Under the Agricultural and Woodland Preservation Program (AWPP) in Anne Arundel County, there are a total of 74 protected properties of which 14 overlap with sites on the MIHP, 1 NRHP site and 2 archeological sites. Here, 19% of properties protected by the local program also protect an MIHP listed historic site. Local programs cover more historic resources than state programs, which may be because local programs have the flexibility to target a broader range of lands and be more specifically tailored to the conditions and interests within the local area.

Historic Sites on Protected Lands in Prince George's County							
		Total Protected Properties	Protected Lands with Historic Sites				
			MIHP	NRHP	Arch. Sites	County	Environ. Setting
Local	HARPP	14	4	0	4	4	1
	%		28.6%	0%	28.6%	28.6%	7.1%
State	MALPF	13	2	0	1	1	0
	%		15.4%	0%	7.7%	7.7%	0.0%
	Rural Legacy	14	5	1	1	0	2
	%		35.7%	7.1%	7.1%	0.0%	14.3%
	MET	14	3	0	0	2	2
	%		21.4%	0%	0%	14.3%	14.3%
	POS	558	39	0	45	41	4
	%		7.0%	0%	8.1%	7.3%	0.7%
	State Total	613	49	1	47	44	8
	%		8.0%	0.2%	7.7%	7.2%	1.3%

Historic Sites on Protected Lands in Anne Arundel County					
		Total Protected Properties	Protected Lands with Historic Sites		
			MIHP	NRHP	Arch. Sites
Local	AWPP	74	14	1	2
	%		18.9%	1.4%	2.7%
State	MALPF	47	15	2	13
	%		31.9%	4.3%	27.7%
	Rural Legacy	12	1	0	2
	%		8.3%	0.0%	16.7%
	MET	43	5	0	20
	%		11.6%	0.0%	46.5%
	POS	299	65	6	104
	%		21.7%	2.0%	34.8%
	State Total	475	86	8	139
	%		18.1%	1.7%	29.3%

Protected Land by Theme

When land preservation programs are aggregated between both counties and grouped according to the central theme under which they are marketed, there is a much clearer picture of where land preservation efforts also protect cultural resources. The primary marketing themes represented by the programs, are: recreational, agricultural and natural. Agriculturally-focused programs include Prince George's HARPP program, Anne Arundel's Agricultural and Woodland Preservation program and MALPF. The Rural Legacy program and MET both primarily target natural features of the land, while Program Open Space encompasses recreational land through the establishment of parks. Under agricultural programs, there are 58 cultural resources (35 MIHP sites, 3 NRHP and 20 archeology sites) on the 148 protected properties; this means nearly 40% of protected agricultural properties also cover some sort of historic or cultural resource. Under natural programs, there are 48 cultural resources (14 MIHP sites, 1 NRHP site and 23 archeology sites) on 83 protected properties. Historic or cultural properties are on 46% of properties protected by natural programs. Under recreational programs, there are 259 cultural properties (104 MIHP sites, 6 NRHP sites and 149 archeology sites) that are protected by 857 state, county or local parks.¹³ Thirty percent of recreational lands between the two counties contain a cultural or historical resource. Of the three main state or local land preservation programs themes, programs that focus on natural areas encompass the most cultural properties.

Total Number of Historic Sites Protected by Theme						
	Total Protected Properties	Without Historic Sites	With Historic Sites	MIHP	NRHP	Arch. Sites
AGRICULTURAL	148	90	58	35	3	20
%		60.8%	39.2%	23.7%	2.0%	13.5%
NATURAL	83	45	38	14	1	23
%		54.2%	45.8%	16.9%	1.2%	27.7%
RECREATIONAL	857	598	259	104	6	149
%		69.8%	30.2%	12.1%	0.7%	17.4%

Targeted Lands

In looking at areas in which land preservation programs are targeted, many more historic resources have the potential to be protected through landscape programs, since the area that is targeted is much larger than what is actually protected. State land preservation programs are focused in Targeted Ecological Areas, Rural Legacy Areas and in Priority Preservation Areas. Local programs are focused in the

¹³ Program Open Space protected lands were represented by state, county and local parks.

Rural Tier in Prince George's County and in the county designated Priority Preservation Area in Anne Arundel County. Within the TEA in both counties, there are 489 historic sites. Within the Rural Legacy areas, there are 715 historic properties. In Prince George's Rural Tier, there are 111 sites on the MIHP and 164 county designated sites. Within the PPA in Anne Arundel County, there are 260 historic properties. Of the targeted areas, the TEA contains the most historic sites, which reinforces that natural programs currently overlap the most with historic sites and areas.

Historic Sites in Targeted Areas							
	MIHP	NRHP	Arch. Sites	County	Enviro. Setting	Easements	Total
Historic Sites							
Prince George's	2026	73	1000	548	402	31	4080
Anne Arundel	2266	91	1382	N/A	N/A	66	3805
TEA							
Prince George's	463	12	376	152	90	5	1098
%	22.9%	16.4%	37.6%	27.7%	22.4%	16.1%	26.9%
Anne Arundel	26	2	103	N/A	N/A	1	132
%	1.1%	2.2%	7.5%			1.5%	3.5%
Rural Legacy Area							
Prince George's	156	9	110	86	56	0	417
%	7.7%	12.3%	11.0%	15.7%	13.9%	0%	10.2%
Anne Arundel	111	17	165	N/A	N/A	5	298
%	4.9%	18.7%	11.9%			7.6%	7.8%
Rural Tier							
Prince George's	426	20	293	164	116	2	1021
%	21.0%	27.4%	29.3%	29.9%	28.9%	6.5%	25.0%
PPA							
Anne Arundel	118	10	132	N/A	N/A	0	260
%	5.2%	11.0%	9.6%			0%	6.8%

Easement Size and Focus

Another difference between cultural and natural land preservation is due to the targeted resource that easements seek to protect. Easement programs were identified as focusing on recreational, agricultural or natural resources. Historic easements focus on cultural resources that, by

nature of the preservation field, are typically relegated to a structure as opposed to the land. This is why historic easements were significantly smaller than easements that focused on land preservation for agricultural, recreational or natural resources. There are 97 MHT easements in Prince George's and Anne Arundel counties that average 9.97 acres in size, while easements through MALPF, Rural Legacy and MET average 94.32 acres. Easements through local programs, HARPP and the AWPP average 85.33 acres. Land preservation programs all have a minimum acreage requirement, thus the discrepancy between the acreage of historic property easements and easements through natural or agricultural programs.

Average Size of Protected Properties		
	Total Number	Average Size (acres)
MHT	97	10.0
MALPF	58	94.0
Rural Legacy	24	87.9
MET	37	94.3
POS	N/A	N/A
AWPP	74	83.3
HARPP	14	95.8

Spatial Implications

From these findings, there are clear overlaps between natural and cultural resource management strategies. First, local land preservation programs contain more historic sites than state programs. Also, programs that focus on natural areas contain more historic sites than do recreationally- or agriculturally-focused programs. Of areas where programs are targeted, TEAs cover more historic sites than do Rural Legacy, PPAs or the Rural Tier. On properties where land preservation programs protect historic resources, or where programs are targeted, indicate similarities in the types of resources that are targeted by historic preservationists and land preservation programs.

Program Design

Within the enabling legislation, the purpose of many land preservation programs is to preserve the “rural character” of a place, which evokes historic countrysides and agricultural tradition across landscapes. The beauty of the phrase “rural character” is that it promotes stewardship for the land by appealing to community pride and spirit, which may help to quell complaints from adjacent non-agricultural property owners. Land preservation programs may be strengthened by incorporating a rural character element to their language as a way to recognize that rural character may at times be gritty, for example through farm smells, noises and agricultural uses, which add to sense of place. In the stated purpose for most land preservation programs, rural character is captured through different legal phrases.

In addition to the legislative intent of land preservation programs, many programs incorporate natural and cultural resource protection as a stated goal. Specifically, state programs that include a cultural element are: Rural Legacy, POS and MET. The MALPF program focuses solely on protecting

agricultural land and productivity, which in practice protects rural areas and character. Prince George's local land preservation program specifically targets historic agricultural land, while Anne Arundel's local program is designed in a similar fashion to MALPF and targets agricultural land, which by design protects rural areas. It is not hard to see how these programs protect cultural landscapes when driving the countryside and viewing lands protected by these programs. The lands targeted for protection for natural or cultural purposes certainly evoke rural tradition and historic land use.

Most state and local land preservation programs do incorporate cultural landscapes as their targeted resource, under an array of descriptions, including but not limited to: rural character, historic agricultural land or the fabric of rural life. Some programs may not explicitly mention cultural or historic qualities, as they have agricultural lands as their focus. Even if not mentioned, preserving agricultural land can have the effect of preserving cultural landscapes. Recognizing historic and cultural elements in agricultural land may build greater support for protecting or adding value to agricultural land.

Finally, most land preservation programs have a clear method for determining an easement's monetary value. For agricultural lands, easement value can easily be determined using the productivity of the land from agricultural products sold in previous years. For natural lands, easement value is measured based on the property's highest and best use, which is determined by a qualified appraiser (Rural Legacy Program Manual, 2011). The highest and best use is often described as the value of the land, improvements and equipment or machinery for which there is a current market. A similar system for measuring the cultural or historic value of the property does not exist, which means the non-monetary (cultural or natural) assets of the land are not factored into the property's total appraisal, providing an incomplete picture of the property's value.

Historic Preservation

In Prince George's County, county designated historic properties are listed by two categories: resources and sites. There are 412 historic sites listed by the county, which are sites that meet the criteria to be significant and are protected by the county's Historic Preservation Ordinance, Article 29 of the County Code. Historic resources are sites that have been recognized as historic but have not yet been evaluated to determine significance and integrity. Under the county's historic preservation ordinance, historic sites are afforded a level of protection that requires Historic Area Work Permits for proposed work on historic properties. The county's preservation ordinance also defines the environmental setting as the visual or historical surrounding of the historic resource that is essential to the resource's integrity. The environmental setting for historic sites in Prince George's County are defined on 402 properties. Of these, nine historic resources and 406 historic sites have defined environmental settings (some environmental settings encompass multiple historic properties). The environmental setting is outlined at the time the resource is evaluated for significance for historic site determination or when a development application affects the historic property. Since the environmental setting may be amended, especially when facing proposed development, historic land associated with the integrity of the resource is still vulnerable.

In Anne Arundel County, historic sites are protected under Article 15, Section 501 of the county code. The county's historic preservation ordinance is able to protect historic resources by requiring design covenants for new development in proximity to historic resources in order to preserve and enhance scenic views of the resource. In situations where development may affect resources listed in the County Inventory of Historic Properties, the county may require the developer to grant an easement to the historic property and agree "to the extent feasible" to preserve the historic resource. The county's Cultural Resources Division of the Planning and Zoning office coordinates with MHT when federal permitting or use of funding triggers the Section 106 process. The Section 106 process, as part of the National Historic Preservation Act of 1966, is a procedural requirement that mandates federal agencies take into account the effects of their undertakings (funding, permitting or licensing) on a historic resource (that is listed or eligible for listing on the NRHP) and to minimize "to the extent feasible" the effects of the federal action on the historic property. When development or land alteration affects properties and does not trigger the Section 106 process (or where there is no federal action required), the county is able to protect resources under its historic preservation ordinance. The ordinance considers the property as a whole as opposed to just the "area of potential effect," which is the area that may be affected by a proposed federal activity. Since the county is able to consider the property as whole, the land associated with the historic resource has a much better chance of being protected than when only the federal law is applied.

Local historic preservation ordinances offer better tools for resource protection than are available through state or federal laws. Because of this, local preservation programs offer the best opportunity to protect historic resources, including cultural landscapes.

Program Design Implications

The ways in which land preservation programs are designed and implemented relates to the level of protection afforded both cultural and natural resources. At the same time, some program designs are also barriers to collaborative partnerships between historic preservationists and land preservationists. Agricultural programs lack a discussion of the value agriculture adds to rural character by focusing on protecting agricultural production. Many programs lack the ability to articulate the value that cultural, historic or natural resources add to a property by using the highest and best use to determine property value, which relies on current market demand and not that which may be valuable in the future. Historic preservationists still need to more clearly connect the landscape to the historic site and use their current protection tools more forcefully to protect the resource. Since local ordinances offer strong protective services, they can be applied more persuasively if they are also backed by other land preservation programs.

From Experience

From the experience of program administrators and directors, there is a developing interest to

discover new strategies for land protection by leveraging collaboration between natural and historic or cultural programs. Many administrators see great potential in establishing strong partnerships between preservationists and environmentalists, especially in an era where the funding mechanisms for land preservation programs are drying up due to a depressed real estate market and cutbacks in federal spending. Examples of where administrators have identified challenges and opportunities to creating partnerships can be used as the first step toward designing new lines of communication and shared responsibilities in working relationships between agencies with shared goals.

Inherent Challenges

One challenge to creating partnerships is the result of the different languages that preservationists and environmentalists have created to prioritize resources worthy of protection. Preservationists think qualitatively in terms of lists, significance and integrity, whereas quantitatively based environmental agencies use ranking and scoring systems to identify resources for protection (Kegerise, 2011). Many land preservation programs use a ranking system that scores specific criteria related to the value of the natural features, the threat of development and the continuity between protected lands. The ranking system prioritizes properties for protection, relative to the available annual funding and previous applications. While both systems are intended to be free of subjectivity, there is concern that resources may occasionally be prioritized according to personal judgment or political pressure (Buxton, 2011). Traditionally, this has been especially relevant to preservationists who have used beautiful or unusual architecture as a principal criterion for determining eligibility for historic inventories. As the field has evolved, preservationists are recognizing significance in the property as a whole, as opposed to just its distinct architectural features (Nicholas, 2010).

The effect has been a misunderstanding of the eligibility criteria, which has bewildered private property owners who recognize cultural significance in their land, which may not meet the National Register criteria. As a result, the degree of stewardship that is needed does not often develop as landowners may abstain from translating official standards of historic significance in their properties (Kegerise, 2011). It is easier for landowners to rely on ranking systems that follow clear scoring checklists than to research the history of the property and determine how a parcel fits into the standards of significance and measures of integrity. Only those with the strongest preservation ethic will seek to protect resources in order to prevent development of important cultural landscapes. Often, this happens far too late in the development process, when the wheels are already in motion for subdivision.

Perhaps the greatest challenge to marrying natural and cultural protection stems from the requirements to treat a historic building. Some programs avoid acquiring land or purchasing easements on properties with historic buildings because of the cost associated with maintaining or restoring a historic building. The cost of renovating a historic structure to perform at current building standards while also preserving its historic integrity are often beyond the limits of available funding or require expert advice that can be expensive. In acquiring land through POS, for example, the Maryland DNR often shies away from land with historic structures, as they are unable to provide the necessary

resources for treating the building, which is required under state law (MD Ann. Code § 5A-325) (McCarthy, 2011). The DNR has setup the Resident Curatorship Program as a way to leverage private funds for the treatment of historic buildings; yet, this only works if private citizens are willing to spend large amounts of their own funds on property they will never own, a hefty commitment for those agreeing to the terms of the lifelong lease.

Finally, connections between natural and cultural resource protection are not being made because preservationists are not pushing hard enough to integrate with land conservation projects (Cox, 2011). While focusing on the significance and integrity of structures, preservationists often miss the opportunity to pursue larger resources that also retain cultural or historical elements. In some instances, namely development projects affecting archeology sites, there are strict procedural requirements in place to ensure that development projects do not adversely affect the resource (Phase I, II and III requirements). In other instances, developers are able to negotiate the treatment of the historic site, which is the most that preservationists can hope for when it comes to the long-term treatment of the resource. This frequently occurs when developers attempt to amend the environmental setting or negotiate design guidelines on new development in proximity to or on historic sites.

Opportunity Knocks

In response to challenges, program administrators are identifying opportunities to blend efforts to protect natural and cultural resources simultaneously. Many program administrators have identified national efforts that encompass natural resources across broad landscapes as a way to tie local land preservation efforts to federal funding (McCarthy, 2011). The National Trails system is currently developing historic trails in the Chesapeake that preserve the voyages of Captain John Smith and the battlegrounds and troop movements of the War 1812. Under Executive Order 13508, The Chesapeake Bay Protection and Restoration Initiative is defining Treasured Landscapes that have cultural elements in natural lands as a way to preserve land with the benefit of improving the water quality and integrity of the Chesapeake Bay and its tributaries. Finding landscape initiatives that value natural and cultural features of the land while preventing development are becoming key strategies toward maximizing the collaborative efforts between multiple disciplines.

Additionally, there is recognition that creativity in easement terms is an effective way to incorporate multiple sets of values under one legal document. Since easements are individually tailored to the specific needs of the landowner and the conditions of the property, they can be drafted to incorporate a wide range of the property's key features and outline new management strategies for protecting these features in perpetuity. For example, since MET easements are primarily donated, they are able to remain fairly flexible in terms of how they protect the land and appease the interests of the landowner (Hutson, 2011). Consequently, they are creatively being drafted to suit a variety of conditions.

Experiential Implications

Many of the ways that program administrators are implementing land preservation programs

also have opportunities and barriers for collaborative partnerships between historic preservationists and land preservationists. Both disciplines have distinct languages they speak while identifying and protecting resources. Frequently, the way these languages speak about resource protection requires a translation between separate fields working to protect the same things. Also, some programs have strict requirements for ranking properties to prioritize or strict management requirements that deter other interests. Fortunately, many administrators are beginning to look for other landscape-scale initiatives that bridge large areas and protect a wide array of resources under different definitions. Finally, administrators are leveraging the flexibility of easement terms to ensure they are amenable to the landowner and reflect county and state goals of protecting land resources.

Overall

From these findings, it should be clearer to land preservationists where there are opportunities and barriers for collaborative partnerships that form multi-disciplinary approaches to protecting undeveloped, natural land and rural areas. It appears that preservation programs that focus on natural lands have protected the most historic sites. At the same time, local programs and regulations are the most effective at protecting sites that are regionally significant, such as: Prince George's HARPP and Anne Arundel's Agricultural and Woodland Preservation program, as well the county historic preservation ordinances. Additionally, the areas where programs are targeted provide boundary illustrations of how land preservation programs overlap with other fields. By design, many programs speak address cultural resources in program goals; at the same time, they may lack some of the key terms, methods and intents that will allow them to achieve county and state land preservation goals. Some agricultural programs lack a clear discussion of the importance of rural tradition and heritage, while historic preservation often misses an opportunity to highlight the cultural significance of the landscape. Most programs lack the ability to capture a fuller value of the property and all of its assets due to the current real estate structure. Finally, the requirements for some programs often forces administrators to focus narrowly while identifying properties worthy of protection, which may blind them from realizing the possibility of drawing on other programs for assistance.

By taking into account these similarities and differences, new strategies are currently in the works that move beyond specialization and into collaborative partnerships driven by the need for efficient programs. Program administrators are finding new ways to recognize larger landscape initiatives as a way to connect to the resources and capacities afforded by similar programs. They are also using creative easement terms to appeal to the many interests held by regional communities and landowners. Preservationists are making more concerted efforts to see culture and history in natural lands; environmentalists are becoming more adept at recognizing and protecting historic structures in strategies to protect natural areas. Using existing legislation and funding mechanisms, creative new strategies are cropping up that create new lines of communication, holistic approaches and working relationships between agencies once isolated.

CHAPTER 7: RECOMMENDATIONS

In light of the rapid loss of undeveloped land that provides critical ecological processes for quality of life, preserves culturally and historically significant sites and stories for national heritage, valuable habitats for plant and animal species, the call for protecting this land is quickly becoming one of the highest priorities for the Chesapeake region. Consequently, building support for and strengthening the programs that do this needs to recognize the limitations and strengths under the current structure and implementation of all the programs combined. Most importantly, this can be done through leveraging partnerships working toward the same goal: protecting the essential natural and cultural features of the Chesapeake Bay watershed.

Historic Preservation and Land Preservation

When historic preservation focuses on the structure, it misses an opportunity to protect a larger area that may also be targeted by land preservation programs. In order to combine efforts, preservationists should extend the relationship of the structure to the land more clearly. If protecting the structure is the only goal, then the historic site loses its integrity when part of its landscape is lost. Preservation of the entire resource needs to account for all the factors that play into a building's significance; architecture and craft are but one part of a much larger resource. A barn amidst an office complex or subdivision does not evoke the same historic quality as does the barn amidst working farm fields. All too often, new housing units and



Source: Author



Source: Author

Image 8 and 9. A farming field that adds to rural character is across the road from a new subdivision on Croom Road in Prince George's County.

commercial developments are devouring parts of rural areas, natural lands and historic sites. New roads or highway expansions are making it easy for commuters to live further from employment and the result is a devastating blow to rural heritage, productive farmlands and the environment. Respecting historic and cultural quality in addition to the agricultural, recreational or natural features is one more set of values in preserving land that will appeal to a broader audience of concerned property owners.

One way preservationists are developing their dialogue with land conservation agencies is by enhancing their efforts to preserve cultural landscapes, which include the natural features of the land as well as their cultural and aesthetic values (Birnbaum, 1994). In attempts to preserve rural character, identifying the cultural landscape as a whole broadens the targeted area in which to recognize natural or historic resources and develop plans for protecting valuable features of rural areas. Just as land preservation programs have targeted areas in which to focus funding, preservationists could use cultural landscapes as a way to prioritize areas to identify key features of rural heritage. Within these areas, the land associated with the historic site should be determined using the broadest definition of the resource boundary. A well-developed inventory of cultural landscapes, with clear boundaries, will strengthen preservation efforts in rural areas.

Another reason preservationists have not dedicated more effort to protecting the land associated with or the management of the historic site is because they often reserve some bargaining power to at least get a seat at the development review table. In order to have a say in the design, layout or subdivision associated with new development, they often make compromises in order to get developers to agree to some of their demands. If preservationists are able to make better cases for protecting the land associated with a building with the backing of other land preservation programs, they may be afforded more of the resource without having to make large compromises to the integrity of the historic site.

Prince George's and Anne Arundel counties are currently discussing new ways to identify and protect cultural landscapes. In Chapter 6 of Prince George's 2010 Historic Sites and Districts Plan, the historic preservation commission outlines new strategies to identify and protect the environmental

Historic Preservation Recommendations	
Limitations	Recommendations
The field has not yet developed a formal inventory of cultural landscapes; therefore, they have no defined area in which to focus efforts to preserve rural areas.	Create an inventory of cultural landscapes in which to focus efforts and portray the significance of rural heritage and agrarian tradition.
The field often uses design guidelines, cultural landscapes and treatment schedules of historic sites as bargaining tools when faced with development.	Seek the support of other land preservation programs while making a case for protecting cultural landscapes.
The focus of many preservation agencies remains tied to architectural character and the uniqueness of a particular structure in determining properties worthy of protection	Extend the integrity of the historic site to the landscape in addition to the structure.

setting of historic sites through incentives and tighter review of proposed development effects (Prince George's County Planning Department, 2009). In the same plan, the county dedicates Chapter 9 to strengthening efforts to preserve cultural landscapes, which includes forging partnerships with environmental organizations (Prince George's County Planning Department, 2009). Anne Arundel County outlines the need to preserve rural areas in Chapter 4 of the 2009 General Development Plan. Within this section, it references how similar goals are shared in separate chapters discussing the need to balance growth, develop environmental stewardship and preserve farmland (Chapters 3, 5 and 8, respectively) (Anne Arundel County, 2009). Additionally, Anne Arundel County has one documented cultural landscape in the form of the Cumberstone Road Rural Historic District on the eastern shore of the county along the Rhode River that is listed on the MIHP. Through environmental settings, cultural landscapes, rural farming areas and rural historic districts, both counties are enhancing the role of historic preservation by simultaneously protecting natural and cultural resources.

Agricultural Programs

Agricultural land preservation programs have drawn the strictest set of criteria for prioritizing land, due to the need to focus funding. Currently, both counties have a backlog of applications for easements that are waiting for available funding. Generally, administrators look for size and the elimination of outstanding development rights in determining which properties should be offered easement purchases, to maximize the effects of program expenditures (Polito, 2011). This indicates agricultural preservation programs likely have the greatest need for new partnerships as a way to spread the burden of drafting easement terms, monitoring protected properties and acquiring additional protective services through programs from other disciplines. The state MALPF program and the AWP program in Anne Arundel County both focus primarily on the agricultural productivity of the farm; there is little mention of preserving the historic or cultural value of farmland. The HARP program in Prince George's County was drafted with the purpose of recognizing the historic qualities of farms in order to offer incentives to properties not eligible for the state program. A diverse set of programs, with separate criteria for eligibility, is necessary to cover the range of properties types, sizes and land uses as well as

Agricultural Program Recommendations	
Limitations	Recommendations
In prioritizing properties for agricultural easements, many programs draw criteria and scoring systems around agricultural production and presence of sensitive ecological features.	Include rural character as an item that could receive scores, given historic properties present, scenic qualities and unique cultural features on the property.
Some agricultural preservation programs are designed too much alike and lack sufficient distinguishing criteria.	Ensure that programs are sufficiently different from one another in order to maximize the number of properties that are eligible for easements.

bridge regional variation. A program that works in one area may not be as effective in others due to the different types of farms, historic resources or natural lands that are specific to different regions. Programs need to be sufficiently different from one another in order to appeal to a wide range of landowner needs, priorities and circumstances.

More evidence of cultural elements in agricultural preservation programs will help also bridge the gap between preservation and agricultural funding. Under the MALPF program in Prince George's County, the PPA in Subregion 6 was identified for its historic elements and scenic viewsheds relevant to the Star Spangled Banner Trail (Prince George's County Planning Department, 2011). Recognizing scenic and historic elements on agricultural land will help to create linkages between agricultural lands and historic landscapes, which may be especially advantageous when linked to federal efforts such as the National Park Service's National Historic Trails or the programs administered by the Natural Resource Conservation Service under the U.S. Department of Agriculture. Linking to these types of federal programs may connect farmland to federal funding, such as the Land and Water Conservation Fund, distributed by the National Park Service. Recognizing other landscape-scale preservation efforts should be used as the framework to determine where shared goals exist and where collaboration between program administrators or the distribution of program funding can be used efficiently to reduce redundancies or ineffective easement purchases.

Natural Land Programs

Programs that target natural lands have defined the largest areas in which to target funding, which is one reason why natural land focused programs (Rural Legacy and MET) have encompassed the highest number of historic resources on protected lands. Over 46% of protected lands through natural programs contain a historic site. It is expected that because of this overlap there would already be established partnerships, for example through coheld easements. MET coholds one easement in each county with the MHT and half of all of its easements with local land trusts (Hutson, 2011). Since MET easements are flexible in design, due to the fact that they are accepted donations and do not have strict criteria for eligibility, easements can be tailored to the needs of the landowner. Because these easements do not have strict eligibility criteria, there is less of a need for professional expertise to determine soil classification or agricultural production for instance, which may be one reason why MET is

Natural Land Program Recommendations	
Limitations	Recommendations
Most programs that are focused on protecting natural features of the land are either restricted or focused in Targeted Ecological Areas.	Encourage land protection wherever land properties of undeveloped land are present and where the most development rights may be extinguished or transferred to already developed areas.
Preserving large parcels of undeveloped land may limit public access to many parts of the state.	Provide additional incentives for landowners agreeing to some form of public access, such as rights of way, in easement terms.

able to partner with land trust organizations and other agencies more often. Drafting flexible easement terms and separating specialized tasks from other duties will help to appease landowner concerns and allow local land trusts to participate in managing protected lands.

Recreational and Educational Programs

Recreational lands are able to encompass many different types of lands and appeal to a wide array of interests. Bikers, runners and hikers want trails and scenic roads; boaters and fishermen want water access, beaches and clean streams; hunters and birdwatchers want undisturbed habitat and wetlands; historians want battlefields, historic sites and farms. The land that satisfies these many users are often both a natural area and the setting for early North American colonial settlement. This may be why recreational programs, namely Program Open Space as measured in this analysis, has historic sites on 30% of the lands protected under program spending. While recreationally-focused programs directly mention cultural resources as an integral component to creating public lands, new strategies can be developed to enhance public access to natural and cultural areas.

Recreational Program Recommendations	
Limitations	Recommendations
Some options that transfer the management of historic properties to private citizens are only useful for wealthier residents.	Establish a loan program or some additional incentive for younger curators who may not have the capital to invest in property that is publically owned.
Some public access or visitor experience may be restricted due to the purpose of the land acquired.	Improve visitor experience by allowing the rental of some facilities for concerts, weddings or conferences.

In the Chesapeake there are various federal efforts being developed that identify cultural landscapes under different guises. Most recently, the Treasured Landscape Initiative, through the Chesapeake Bay Protection and Restoration plan of the Chesapeake Bay program, is creating a list of cultural landscapes using regional plans and natural and cultural features as a basis for identifying areas to direct funding for land preservation with the ultimate goal of restoring the integrity of the Chesapeake Bay. The NPS has a comprehensive management plan for the Captain John Smith Water Trail and is drafting plans for the Star Spangled Banner Trail, and both identify significant landscapes that evoke the scenery and aesthetic value of the historic context under each trail's central theme. These landscapes could begin to form the basis for an inventory of cultural landscapes. Areas where these types of cultural landscapes overlap with targeted areas for land preservation programs should be an indication of an opportunity to collaborate with multiple stakeholders to manage protected lands.

On parklands that have historic sites, there is an established curatorship program that leverages capital from private citizens for restoring historic sites. Unfortunately, this program is mostly used by wealthy elderly couples, who have the necessary capital (Burrows, 2011). This program could appeal to younger curators, if it could offer a loan system to private citizens intrigued by the notion of restoring,

maintaining and living in a historic site within a natural setting. Because these structures are publically owned, improving the visitation terms to allow for more diverse public uses could help build stewardship for the resource as well as generate funding for its restoration. These historic houses may be rented for venues such as board retreats, weddings, conferences, concerts and community organization meetings for a small fee, which could go back into the building's restoration, maintenance and ongoing treatment. Opening historic sites for a range of public uses can help to create a new set of users, draw new funding sources and improve visitor experience.

Finally, easement programs are built to preserve the current use of the land and restrict new non-conforming uses. Even though some interest in the property is owned by the entity that holds that easement, the property is still privately owned. Easement programs can connect to other recreational programs if they establish some form of public use on privately-owned land. Additional incentives could be given to property owners who agree to allow rights of way for trails, access to forested lands for hunting or water access to properties on rivers or the Chesapeake Bay. Although private property rights are highly coveted, successful examples of public use on private properties already exist through ingress and egress easements, rights of way and allowances for hunter access. Linking private properties with public access could begin to form well-connected parks, wildlife management areas and farmlands for the benefit of the general public.



CHAPTER 8: CONCLUSION

The need to preserve land is no more apparent than in the Chesapeake. These lands directly provide important recreational, agricultural and cultural values that contribute to a high quality of life in the Chesapeake region. They also provide essential ecological services that clean air, improve water quality, reduce intensive land use effects, preserve healthy populations of animal and plant species and sequester carbon to minimize climate change. Through these lenses, the rural, natural or undeveloped lands between Washington, DC, and the Chesapeake Bay provide and preserve cultural and natural lands simultaneously. Why shouldn't the programs that seek to protect these lands do more of the same?

There are a number of ways in which preservationists are reaching out to environmental efforts and other ways that they also need to forge into unfamiliar terrain. First, historic preservationists need to take steps to create an inventory of cultural landscapes to work for identifying historic properties worth protection. They also need to work harder to attach significance to the landscape in addition to the structure. Preservationists are and have been working in this direction. They have begun to define and create methods to protect cultural landscapes, created strong protective measures for archeological sites and found landscape resources through battlefields, heritage areas and trails that record significant historical events. The next, and perhaps most crucial, step is to find ways to protect and build stewardship for these resources through education, enhanced visitor experiences and strong partnerships with other fields that share similar goals in terms of resource protection.

Conversely, many land preservationists are also finding new ways to protect cultural landscapes. They have begun to look to other landscape scale initiatives, such as the National Trails in the Chesapeake region, as avenues for shared funding and managerial capacities. They are also exploring options to improve management schedules for historic sites on public lands. At the same time, land preservationists have other ways in which they can step up their efforts to include historic resources or cultural values as a part of protecting land resources. Land preservation programs would do well to include rural character as a feature worth preserving in targeted areas. Then, they will be able to leverage the help of historic preservationists to seek protection for natural lands with cultural elements. Additionally, they can create corridors between natural areas and cultural resources by improving access to natural lands through encouraging public access on private property. This can be done by improving tax credits or financial incentives for agreeing landowners and by acquiring additional land adjacent to protected areas or where private properties grant public rights of way for trails or traditional forms of land use, such as hunting, water access or for fishing. The benefits will be developing local and private stewardship, sustaining the cultural use of the land and improving the experience of new land recreationalists. Land preservationists need to be able to interpret and read all the values that are encompassed in a piece of land, including its cultural elements in lieu of its natural, agricultural and recreational benefits. Simply focusing on the drainage properties of the soil, the riparian buffer zones or

the habitat potential neglects the histories of land use that have shaped the land to its current condition, for better or worse. Protecting the land means advocating for the land in all of its various elements.

In times of limited funding, adding to the to-do list is a heavy request of many program administrators that are already understaffed, overworked and lack the resources to protect eligible properties in targeted areas. This is why leveraging the capacities of other organizations, interests and agencies is critically important for protecting more land from the looming threat of development. More can be done if programs seek the specializations of other programs to handle more technical circumstances or share specific responsibilities that are better suited for different fields. Historic preservationists will obviously be better at illustrating the historic use of the land as well as a management strategy for historic structures, whereas environmentalists will be better at determining a long-term management strategy for the land.

If the ultimate goal is to preserve large areas of undeveloped land, land preservation should be regarded as the combined efforts of all the programs that are actively protecting land resources. Coordinating programs to operate together will reduce redundancies between similar efforts to protect the same areas. Multiple layers of protection on the same property are not needed if local stewardship also actively preserves the property. Finally, there needs to be an organized and coordinated range of products, activities, policies and public participation through stewardship in order to maximize the efficiency of our efforts to protect the land we love.



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